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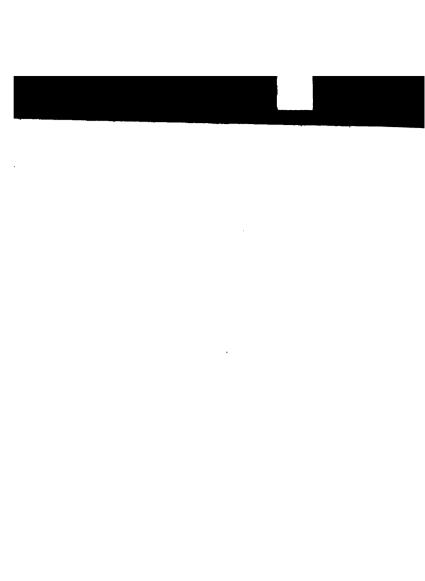


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FIFTY CENTS.

# Western Reserve University

REPORTS OF THE PRESIDENT AND FACULTIES.

1899-1900.



CLEVELAND, OHIO.

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## Western Reserve University.

# REPORTS.....

OF THE

President and Faculties.

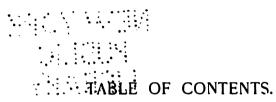


1899-1900.

CLEVELAND.

PRESS OF WINN & JUDSON,
1900.

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## .... MADE OF CONTENTS

Report of the President,	•	3
Report of the Dean of Adelbert College,		62
Report of the Secretary of the Faculty of Adelbert Colleg	e	66
Report of the Registrar of the College for Women, .		67
Report of the Dean of the Graduate School,		73
Report of the Dean of the Medical College,		74
Report of the Dean of the Franklin T. Backus Law School	ol	76
Report of the Dean of the College of Dentistry,		78
Report of the Secretary of the College of Dentistry, .		82
Report of the University Librarian,		84
Report of the Instructor in Gymnastics in Adelbert Colleg	e	89
Report of Instructor in Gymnastics in College for Wome	n ·	93
Report of the Principals of Western Reserve Academy.	(	94



## Western Reserve University.

ADELBERT COLLEGE, COLLEGE FOR WOMEN, GRADUATE SCHOOL, MEDICAL COLLEGE, COLLEGE OF LAW, DENTAL COLLEGE.

### Report of the President and Other Officers for the Year 1899-1900.

To the Honorable Boards of Trust:

As President, I have pleasure in submitting a report of Western Reserve University for the academic year of 1899-1900.

It becomes my duty to record the death of Timothy Doan Crocker, being the tenth which has occurred in the last nine years. Mr. Crocker was chosen to the board in 1878 and for twenty-one years he had served its interests. In earlier years he had indicated his purpose of making either by gift or bequest a large contribution to the endowment, but although this purpose he was not able to carry out, his regard for the college and university was constant and hearty.

I am also obliged to announce the death of Nathan Russell Harrington. Mr. Harrington served as instructor in the academic year 1898-1899, and had been re-chosen for

the year that is now closing. Mr. Harrington was a graduate of Williams College in 1893, and had in the six years between his graduation and his death served as an assistant in the biological laboratory of Williams College, and had been a student and an assistant in Columbia University, as well as instructor in Western Reserve. In the summer of 1898 he went to Egypt to seek specimens of the Polypterus Bichir, and he returned with many specimens of this rare In the last summer he also went to Egypt to continue He died at Atbara, in the Soudan, 26th his investigations. July, 1899. Mr. Harrington had in his short career enriched the field of scientific knowledge. He was devoted to his work as a scientist. In the prosecution of this work he A career which promised the highest eminence is thus ended. The record of the lives and deaths of men of science is a record as full of examples of the noblest heroism as the record of soldiers and sailors.

The Laboratory of Biology, which was dedicated at the last commencement, has in this present year been tested by its use as a place of instruction and investigation. Although the building is not yet fully furnished, and although certain details of its finishing are still incomplete, already it has proved to be of the utmost value. The cost of the building and its furnishing has been forty thousand dollars. It represents a large result for this expenditure. This laboratory, as every college building should be, was built for the future as well as for the present. Although all its rooms are not now occupied, yet in case the under-graduate colleges and the Graduate School grow as they have grown in recent years, every part of the building will soon be required.

The University is also using in this present year the telescope which Mr. Worcester R. Warner and Mr. Ambrose Swasey presented. Through the generosity of these

gentlemen, and also through the generosity of Mr. Samuel Mather, who met the cost of making the necessary changes in the Physical Laboratory itself,—which building was also his gift,—the University is the possessor of as perfect an instrument for the teaching of astronomy as could be desired. It is not the thought of the Professor of Physics and Astronomy to establish courses in certain branches of astronomy. Cleveland, with its atmosphere of clouds and its smoke, is among the poorer conditions for astronomical investigation. But the addition of the telescope allows the offering to students of courses in astronomy, which greatly enrich the under-graduate curriculum. The telescope is of ten and a half inch diameter, and in every sense represents the highest skill of the scientist and the mechanician.

In every college and university the teacher is of far greater importance than the equipment. But the teacher, however able, is prevented from offering the noblest service unless the equipment be ample. The additions that have been made to the scientific appliances of the University are at the present time, and are also in the future to prove to be, of the greatest advantage; but the additions which have been made and which are to be made to the libraries are to prove, if it be possible, of yet higher worth. For the book represents the scholar's most necessary tool. belongs alike to the scientist, the philologist and the philosopher. Through the generosity of Mr. and Mrs. Samuel Mather, of Mr. Henry R. Hatch, and of others, the sum of fifteen thousand dollars has been offered for the immediate purchase of books. Through this expenditure some of the most urgent needs of the library are met for the present time. The library committee has, upon investigation and comparison, decided to apportion this sum in the following amounts:

Medical School, - - - 48

Law School,	23	101			
Dental School, •	21	91			
Instructing in two colleges (subtract),					
Total,	137	717			
The number enrolled ten years ago in the three depart-					
ments then organized was as follows:		-			
Adelbert College,	17	72			
College for Women,	19	38			
Medical College,	21	I 24			
Instructing in two colleges (subtract),	20				
Total,	37	234			
The income, so far as can now be determined, in each of					
the departments, in 1899-1900, from	both in	vestments and			
fees, has been as follows:					
Adelbert College,		\$60,000 oo			
College for Women,		33,813 33			
Medical School,	-	<b>26</b> ,118 74			
Law School,		6,464 61			
Dental School,	-	9.547 19			
The expense therefore of giving	instruc				
The expense, therefore, of giving instruction in each of these departments, per student, has been as follows:					
Aldelbert College,	cen as i				
College for Women,	•	- \$310 87			
Medical School,	• •	197 74 - 181 38			
Law School,	<b>.</b>	64 01			
Dental School,	- ·	- 104 91			
•	-	• •			
It is also to be said that the proportion of students to					
each instructor in each department ha	s been a	as follows :			
Adelbert College,	•	- 6 .			
College for Women,	•	5			
Medical College,	•	- 3			
Law School,	-	4			
Dental School,	-	- 4			
This proportion represents a larger number of instructors to each student than usually obtains. The superiority of the training that is given in the under-graduate colleges, and					

the professional schools of Western Reserve University, is due, in no small degree, to the individuality of tuition which is thus assured.

The income from investments amounts to about \$70,000, the exact statement not being ready. The University is able to net practically six per cent. upon its investments. This rate is higher than many colleges are able to secure. The University is enabled to gain so high a rate from its investments only through the wisdom and care exercised by the Executive Committees.

The president has had put into his hands for the present year, as he has usually had given to him in former years, the sum of about two thousand dollars to aid worthy and indigent students. The larger part of this money has been contributed in sums of ten dollars, although some contributions have been a hundred dollars each. In the American college at least one third of all the students are dependent, either wholly or in part, upon their own resources for getting their education. The man, and especially the woman, who earns his way through college usually finds that the education thus secured is not of that value which it ought to have. Strength that is used up in earning one's bread, can not be devoted to intellectual endeavor. usually wise for the ordinary student to seek to earn his whole way through college. The number of men and women who are able in intellect, but poor in purse, and who desire to be educated, does not diminish with the increasing . wealth of American society. Many of these boys and girls are of the worthiest character. The college is a public institution and is designed to serve the people. Therefore it is a happy condition in which not a few citizens are glad to put money into the college purse for the education of able and poor students. The larger part of the funds which are thus used in aiding the education of young men and women

are regarded as loans. These loans are simply debts of honor. The student who receives their advantage is supposed to pay the debt as soon as he is able after graduation. No interest is charged while the student is in college but interest is charged at the ordinary rate, from the time of leaving college.

The experience of many colleges in respect to the re-payment of these loans, for essentially the same methods prevail in all colleges, is at once encouraging and discouraging to the continued use of the method. In case wise persistency be used, the larger part of these loans are paid, and the experience is encouraging to its continued use. In case no endeavor is made to secure re-payment, a very small share is ever paid. About one thousand dollars has been paid this year on the account of these loans.

For many years the first degree conferred by the American college was the degree of Bachelor of Arts, A. B. The American college now confers, as the first degree, not only the degree of Bachelor of Arts, but also Bachelor of Letters, B. L., Bachelor of Philosophy, Ph. B., and the degree of Bachelor of Science, B. S. Up to the year 1882-1883 Western Reserve conferred only the degree of Bachelor of Arts, but in the year 1882-1883 the degree of Bachelor of Letters, and in the year 1889-1890, that of Bachelor of Philosophy, were added. This addition was caused by the change in the content of the curriculum, and this change itself was caused by the enlargement of the field of scientific knowledge and of modern languages and literature. Bachelor of Science is the more common scientific degree, although the scientific degree of Yale is Bachelor of Philosophy. The degree of Ph. B. was first conferred in 1852 by Yale. At the present time in the American college vast diversity obtains in respect to the significance of the first degree. Certain colleges confer one degree, certain ones two,

others three, and some even four. The colleges of Harvard, Johns Hopkins, Columbia, Cornell, Williams, University of Virginia, University of Nebraska, University of Kansas, Vassar, Radcliffe, Bryn Mawr, and Wellesley, confer one degree and only one. The Universities of Pennsylvania, Vermont, Texas, and Amherst College give two degrees. The Universities of Chicago, California, Missouri, Iowa, Cincinnati, Rochester, Northwestern, Boston, New York, Wesleyan, Hobert College and Tufts give three degrees. The Universities of Michigan and Wisconsin confer four.

The history of the Bachelor's degree since the revival of learning is either vague or obscure or complex. The history of the degree is characterized by a medley, which at present also characterizes its various relationships. The general significance of the degree, however, is clear: the one upon whom it is conferred is supposed to be a gentleman of trained intellectual power. He is also supposed to be possessed of liberal learning. This interpretation is of course not infrequently unjust. Formerly, as the content of the college curriculum was simple, embodying as its main elements Latin, Greek, Mathematics, and Philosophy, so the one who received the degree was supposed to be a scholar in the ancient classics and in simple Mathematics and Metaphysics. With the vast enlargement, however, of the field of knowledge, and with the introduction of the elective system of studies as a consequence of this vast enlargement. it is no longer possible to make an inference respecting the content of the knowledge possessed by him who receives the degree.

Knowledge of the greatest variety is possessed by men who graduate at the same college and who receive the same degree. But the degree of Bachelor of Arts should certainly stand for the possession of trained power as a thinker. This is as exact an interpretation of the significance of the degree as can now be had.

The under-graduate colleges of this University are now giving three degrees, Bachelor of Arts, A. B., Bachelor of Letters, B. L., and Bachelor of Philosophy, Ph. B. These three degrees bear relations to the conditions for admission to the colleges. They represent three courses,—known as the Classical, the Modern Language, and the Latin Scientific or Latin English, to which the requirements for admission include in common proficiency in English, Mathematics, and Latin. In addition to these requirements, which are the same for each of the degrees, a student who enters a course leading to the degree of Bachelor of Arts is required to have Greek: one who enters a course leading to the degree of Bachelor of Letters, French or German; and one who enters a course leading to the degree of Bachelor of Philosophy, Chemistry, Physics and English or General History. In the Freshman year all these men are required to take courses in Bible, English, Latin, Mathematics and German, and also in either Greek, French or Chemistry, according as their course has required one of these for entrance to college. the Sophomore year all students take Chemistry, English and Biology, but are allowed to elect under certain restric-'tions the courses they pursue for the remaining hours of their work. In the Junior and Senior years the men are allowed to elect with absolute freedom the courses which By reason, therefore, of the changes that they pursue. have been made in respect to the significance of the degree of Bachelor of Arts, I beg leave to recommend to the Trustees that on and after the Commencement of 1901 the degree of Bachelor of Arts, A. B., be conferred upon all students who have completed the regular course of study.

In general, let me now say, that it is my conviction that students in these colleges usually elect their studies wisely. The faculty, officially, and the members of the faculty, ersonally, hold themselves in readiness to render all students in makerials aid, suggestion and counsel to all students in makerials choices.

It is ever to be said that the college is not designed to convey a certain amount of information to its graduates, but the college is designed to train its students into the largest and finest character through knowledge, and through personal association; and, in particular, the college is designed to make the intellect a trained instrument of thought. I have therefore had special interest in reading statements made to me, at my request, by the professors in the undergraduate colleges respecting the purposes which they have in mind in giving instruction to students. From the statements thus given me I beg to quote the following, arranging the extracts according to the several departments of instruction.

#### LATIN.

In teaching Latin I aim at the following purposes:-To keep clear in the student's mind translation of Latin and reading of Latin as two distinct objects. In translation to teach the use of English free from unanglicised Latin idioms, readily intelligible to one unfamiliar with the Latin text, and reproducing the spirit and tone as well as the thought of the author. In reading to teach students to take in the thought of the author in the Latin order and without consciously translating; and to do this by the following exercises: (1) translating at sight as nearly as possible in the Latin order, and without any attempt for the moment to regard English idiom; (2) reading aloud translated passages with expression suited to the thought; (3) reading aloud untranslated passages, and making the attempt to give the meaning of each clause or sentence as soon as the end of it is reached in reading. To enable the student through the practice and habit of reading Latin to gain some appreciation of the author's style. To fix in the student's mind such points in Roman literature, history and antiquities as may be suggested by the passages read.

The aims of this department, briefly stated are: (1) To give accuracy and ease in reading Latin without translation. (2) To have students read in large quantities the best representations in prose and poetry of the best periods of Latin literature. To present the political and social conditions of the periods under consideration in collateral reading and in lectures. (3) To present the private life of the Romans in lectures and reading, in such a way that the conditions of Roman life in all relations at different periods may be very clear to the student of today. (4) The department aims through courses that are designed primarily for teachers to prepare young women who intend to engage in teaching for their specific work. For this purpose, lecture courses, with collateral reading, are given in the history of the development of Roman literature and its most important periods. Advanced courses in prose writing are given to prospective teachers, that they may form the habit of thinking in the idiom of the language and that they may know absolutely the diction of the different periods and the structural changes in the history of the language. This work, of itself, leads to interest in advanced philological work. Besides these courses, a course designed especially for prospective teachers is given, which considers the main needs in secondary work in Latin and points out the best ways in which these needs can be most satisfactorily met. The four points mentioned above are kept in mind in the work of this department, not only in order to give full appreciation of the language and its literature, but also, because, aside from those engaged in teaching, women make up the great leisure class of the community. know well the language, literature, government and social conditions of a people so vitally connected with the literature and history of subsequent nations, as were the Romans, they are able to enjoy comparative work in various languages, and to appreciate the literature, government and social conditions of their own country in a far wider degree.

#### GREEK.

In the first half of the Freshman year, two books of Homer's Odyssey and selections from the rest of the work are read in the original, while the entire Odyssey is read in Palmer's translation. In the second half of the year the class has read selections from the works of the Greek orators. In connection with this reading the history of the period from the Persian War to the end of the Peloponnesian War has been reviewed, and a careful study of the Greek text has been enforced by a means of a series of exercises in writing Greek based upon the text read. The first elective course (first half of Sophomore year) was devoted to the Greek drama. Two plays were read in the original. all the plays of Aeschylus and Sophocles and several of Euripides in English translations. The subject matter of the drama and the manner of its representation in ancient times were discussed. In the second half of the Sophomore year Plato's "Defence of Socrates" and selections from other works of Plato were read. Exercises in writing Greek were frequent, the subject matter of the exercises being taken from the Greek text read. A sketch of the history of Greek literature was studied. advanced elective course read during the first half year Demosthenes' oration on the Crown. The instructor read to the class Aeschines' oration against Ctesiphon. attention was given to the historical events referred to in these orations and to Attic judicial and legal procedure. At the request of the class, exercises in writing Greek were introduced. In the second half year, the advanced elective course has been studying the sources of Greek history in the fifth century B. C. Inscriptions as well as extracts from Greek, and occasionally, Latin writers have been read, and each member of the class has contributed a paper on some special subject. This account of the work attempted will

show that the purpose of the instruction has been not merely to encourage the students to read Greek, but to help them to read it with accuracy and intelligence, that careful philological training may sharpen their faculties of observation and reasoning, and at the same time to give them a broad knowledge of Greek history and Greek literature. The purpose of such knowledge is not to limit the sympathy of the student to ancient times or make him less active to the affairs of his own time, but to give him thorough knowledge of the history and literature of a singularly gifted people at a remote period, the ability to regard what goes on about him as a whole, to see not merely the nearest historical and literary phenomena but also the relation of such phenomena to each other, and the effect upon the development of humanity.

#### HISTORY OF ART.

The lectures in the History of Art this year have covered the period from the beginning of Christian Art to the end of the Italian Renaissance, or to about 1600. It has been my purpose to keep constantly before the minds of the students the relation between the history of art and the history of civilization in general. I have also tried, by means of photographs and such other illustrative material as we have at our disposal, to make the students acquainted with at least the most important works of architecture, sculpture, and painting. Though I have tried to give a history of art rather than of artists, I have endeavored to make the students acquainted with the chief artists as well as with their works. It is, I believe, of importance to have our students appreciate the value of the beautiful and understand that the art of a nation is part of its life.

#### ROMANCE LANGUAGES.

The principal object of the instruction in this department is to give the students a reading knowledge of the language taught. This is done in two ways: (a) by translation, in which accuracy and an idiomatic English equivalent of the original is required; (b) by turning easy English sentences into the foreign tongue, an exercise which calls attention also to the ways of expression employed by other people, illustrative of their processes of thought. A subordinate object is to acquaint the students with the literature of other nations. Only standard foreign authors are read even in the elementary stages of the work. Their notions of style and construction are commented upon. A third object is to show how foreign nations approach the various problems Their point of view is presented in their own words and with their own arguments. The practical application of their ideas to the family, the state and religion are also considered.

#### GERMAN.

The benefit to be derived from the study of German, as is the case with all other languages, depends largely upon the number of years of his college course which the student can devote to it. The elementary work necessarily deals mostly with the language on its formal side, and is valuable chiefly for the mental discipline which it gives. Longer study may give not merely increased mental discipline, but also that culture which comes from contact with a noble lit-To the student who continues his work in German through his whole college course, the following results, at least, may be assured: 1.—Some small ability to write and speak the language and considerable more ability to comprehend it when spoken. Schools and colleges, as they must ordinarily be constituted, can do no more on this side of their instruction. 2.—Ability to use the language as a tool in all kinds of advanced work. This is no small advantage, for the activity of the Germans in all fields of thought is so great that the ability to read the language with ease is of real importance in any line of advanced research. 3.—The actual study in class of a number of representative literary works, and consequently, to that extent, an acquaintance with the literature, spirit and life of the German people. Added to this is the ability to read German with ease and pleasure, so that the treasures of German literature are open to the student in all his after life, if he choose to make use of them.

These three great purposes are held in mind: 1.—A purpose which is, or ought to be, common to all college studies, namely—to secure to the students in and through their work the best and greatest possible training of their mental powers—to teach the student to see things, to see the relations of things, and to think, clearly and accurately and in large, sensible and reasonable ways about them. 2.—A second purpose, common to but few other subjects, is to secure to the student the ability to use German as a means to other ends, i. e. to the pursuit of other stud-Germany has become the schoolmistress of the world: much, if not most, of the best that has been written about the Classics, History, Economics, Science, Literature, Folklore, Art, Philosophy, Pedagogy, Theology and even English has been written by Germans—and is in large part inaccessible and useless to those who know no German. It is. therefore, one of our purposes to give the student accessready and easy access to these stores of German scholarship -without which no student is ready to do his best work in Particularly do we seek to make our German on useful to the student of English. The most study for any one is his mother tongue, and the which is the record of the aspirations and achieven race and people. To students of English elpful as German, for German is the twin 3.—A third great purpose, common to no other subject, is to teach German for its own sake, for its great cultural value, as part of the necessary equipment of the liberally educated person of to-day. We regard German literature as the storehouse of some of the world's best thought, and especially as the record of German civilization, the embodiment of the highest German ideals of life and character, the story of that striving and achievement which have given Germany her place among the nations, and we seek to bring these ideals home to the student to the development of his own culture and character and power.

#### ENGLISH.

In rhetoric, the purpose of the department is to emphasize the practical, rather than the merely theoretical nature of writing. For the execution of this purpose each student is required to write shorter and longer themes under the direction of the instructor, to confer regularly with him as to individual faults, and to make all corrections suggested, even rewriting themes when necessary. A large part of the instructor's time is devoted to this individual assistance, given in personal conferences with students, as more profitable than any class work or general criticism can possibly Throughout the course, also, the importance of good models, as exhibited by masterpieces of style, is also strongly urged. Some of these are always studied in class, while others are assigned for collateral reading and study. course in detail is as follows: The first half of the freshman year is devoted to a study of rhetorical theory by the use of a text-book on that subject, accompanied by numerous selections illustrating style and the different forms of writing. During the same time each student prepares short themes, both under the immediate supervision of the instructor, and outside of class. The first purpose is designed to correct his more serious faults, as in written work which he does not have opportunity to correct by the

help of books of reference; the second, to correct those errors which the student would not be likely to see unaided, as well as to teach the principles of construction from the standpoint of his individual needs. The second half of the freshman year is devoted to methodical study of masterpleces of nineteenth century prose, in order to present the best models of recent writing and teach style and invention through them. At the same time, the student is expected to continue writing original themes and correcting them under the personal supervision of the instructor. The work of the sophomore year, a one-hour course only, consists of theme writing and individual conferences, accompanied by talks of the class on writing, reading, and such other subjects as will assist in forming taste. Following these required courses, the elective work is intended to give further opportunity for practice in writing, under immediate direction and assistance similar to that outlined The requirements are varied between longer and shorter themes, and such forms of writing as the individual chooses to develop. In addition, elective courses in argument and oratory, and in English prose preceding the nineteenth century are offered. In linguistic study, besides an elementary course given to Latin-Scientific sophomores, such opportunity is offered to juniors and seniors as will give a more thorough grasp of the history and development of English speech, and fit them for teaching English in secondary schools. Such courses are ded to accompany those in literature and rhetoric.

th of education by literature is somewhat differth from similar work in the classical or modern
tages. A foreign tongue challenges strict attentages, and is more imperative in its demand
philological study. The fact that
er tongue has a two-fold effect on

English study: It first enables us to make long readings. which is good, but second it tempts to careless and superficial reading, which is bad. My methods of teaching aim at one thing, Appreciation,—an appreciation to be gained by the student's own reading, and not by adopted opinions. The year has been devoted mostly to poetry. The aim has been to appreciate the poet's thought, imagination, diction, melody, spirit, passion and purpose. To get as near as may be to the author's mind and heart and art, we use sometimes minute analysis, logical and metrical, and sometimes broad generalizations, with the auxiliaries of history, including personal biography, the knowledge, education, philosophy, and social life of the times, and whatever is reflected in the poet's mind. Literature, in one view, is a branch of history, but in our work history is a servant of literature. study of philology and linguistics is suborinate but real, in the effort to appreciate the diction and language power of the author, the lighter shades of meaning and the verbal associations being sought as well as the strong points. The appreciation at which we aim implies, first of all, enjoyment, and secondarily, criticism—which latter is aided by the study of the contemporary criticism through which modern authors have risen to fame. While our efforts are directed to appreciation as the immediate object, it is of course understood that the ultimate object, reached indeed without consciously aiming at it, is to discipline and enrich the soul by the power and beauty of the best writing, and the best interpretation of life.

The courses in English Philology and Literature have been arranged with two definite objects in view. In the first place it has been the desire of the department to give students opportunities for acquiring some accurate knowledge about the historical development of the English language and literature from the earliest times to the present day.

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And secondly, the courses are taught with special reference to the disciplinary and culture value of the several subjects. The arrangement is, accordingly, as far as possible, chronological. While it is not considered necessary for students to have studied Old and Middle English before undertaking Spenser. Shakespeare and Seventeenth Century literature, experience is more and more convincing that the student who begins the reading of modern literature with thorough equipment in linguistics, and an intimate acquaintance with the poetical masterpieces of the older period, has great advantages over one who has not this equipment. The literary courses. whether in earlier English or in Elizabethan and Jacobean literature, or in the classical and romantic movements of the eighteenth and nineteenth centuries, are intended to be both historical and appreciative—though the historical side is believed to be more essential and is therefore more emphasized. Moreover, students who intend to devote considerable time to the study of English literature are earnestly urged to begin with the courses in seventeenth and eighteenth century literature. As they are somewhat general and comprehensive in their scope, they supply the student that background of general reading and culture which is indispensable to the proper appreciation of more advanced and special courses, such as those in Shakespeare, Literary Criticism, The Novel, and Tennyson and In all the courses in literature the study is to a great extent comparative, and students are made to see that the literature of any period is the expression of the political, social, and religious life of the nation.

The main purpose of the courses in English composition is to teach the students to write in a clear and straightforward manner. To this end they write frequent compositions of varying length on subjects which are taken either from their own experience or from what they are studying

These compositions are all read and critiin other courses. cised by the instructors in personal conferences with the students. They are also taught to criticise one another's themes and are generally required to re-write their themes, following the suggestions made by the instructors. The study of the best prose writers is also required in connection with the theme-writing for the purpose of improving the students' style and of training them in appreciation and interpretation of literature. advanced classes а more thorough study of methods of the different kinds of composition is made, and increasing attention is paid to the needs of individual students. Each one is encouraged to undertake more varied and difficult work, such as may best develop the talent she shows. In all the classes arrangements are made to accept compositions written primarily for other courses, e. g., those in history, philosophy, literature, and also those written for the College Folio and Annual. A course is planned for another year in argumentation and debate. In all the courses our purpose is not merely to point out faults, but to indicate how they may be corrected and how various effects may be obtained. The criticism always aims to be constructive. Incidentally, students in the theme courses have been found to show constant improvement in observation, reasoning and mental alertness. Perhaps no courses of study are better fitted than those in composition to give a general mental training. Therefore, in trying to teach the student to express oneself clearly and coherently, these courses also aim to help the student to observe accurately, to form opinions consistently, to think logically, and to open the mind. The courses which I give in English literature vary considerably in purpose according to the class of students for whom they are intended. One main purpose, however, directs them all—to guide the student to an intelligent appreciation of the best in literature. The study of the poetry and prose from 1830 to 1880 extends through two half-year courses. I require a large amount of reading and endeavor to interpret the literature in connection with the social, political, economic, ethical and religious movements which have distinguished this century. Literature is studied in connection with the life it represents.

My general aim in teaching is to develop in my students the power of self-expression. Of course I do not mean by this mere glibness of utterance, or fluency in writing, but rather that rare power, first of thinking clearly and coherently, and secondly of translating thought into effective action. In this attempt what at first seemed to me a limitation I have come to regard as my greatest opportunity. I refer to the fact that my work is done for the most part with the Freshmen. The fact that these students are immature, that their powers are latent, unknown even to themselves, is that which, together with the fact that most of them have come to college with a serious, albeit a vague purpose. makes my teaching a continual pleasure. I have said that their purpose in coming to college was frequently a vague, unformulated one. They do not know precisely why they are here, or what the college has to offer them, now that they have come. At the beginning many admitted to me that they were disappointed and despondent. Not realizing that their own assimilative powers were undeveloped, it seemed to them that the college was not going to give them all that they hoped it would. To such men it is my purpose in teaching to be personally helpful. conferences which are primarily to afford me the opportunity of advising them with respect to their written work, have more than once given me a chance, I should not otherwise have had, to encourage men who were in danger of becoming discouraged. In encourage such confidences on their part it has been my purpose, not only to treat them in a considerate and gentlemanly way, but so far as possible to make them feel that I was wholly in sympathy with them. this end I have urged them to call upon me, and have been a faithful attendant upon the meetings of their debating society, at all of which I have held the august office of "critic." Thus far I have said nothing specifically oft he purpose of my class-room work. In this I have attempted to make the study of literature constructive and synthetic rather than wholly critical and analytical. Only by so doing, as it seems to me, can a man gain an enlarged power in the expression of thoughts in fitting form. And only by such study can a genuine love for literature be acquired and strengthened.

#### HISTORY.

The aims of college instruction in History are partly determined by the work done in the Secondary Schools in this subject. If the pupil has studied history only as an incident of preparatory work in Latin or Greek for one or two terms, or has studied "General" history, at most for a year, it is plain that much remains to be done which might properly be regarded as preparatory. In other words, more time than one would wish must be devoted to the preliminary and humble task of teaching what are sometimes unadvisedly called the "facts" There is also another controlling limitation. Since the required study of the subject includes only 51 exercises, and since no one student can be counted upon to pursue the subject through one series of electives, rather than through another, it is difficult to arrange a series which shall have the element of continuity and progressiveness. not mean chronological continuity, but a continuity and progressiveness in the method of carrying on the study, with the object of giving the student, at the end of the

course, so much familiarity with what is called historical science as should be expected of the person who assumes to have been trained in the subject. Such continuity is attainable in Latin, German, the Natural Sciences, but under the conditions in this college it is difficult to arrange in history. It is my first purpose to extend the student's knowledge of historical facts. But as a fact is something more than a bare event, with a date attached, one of the principal aims of this introductory course, and of all courses, is to lead students to discover the significant relations of events, by analysis and comparison, so that they will feel that an event is not a mechanical, measurable thing, but something which gains its reality and meaning from many other events and processes in human society, a something, the content of which seems to depend much on the capability of the onlooker to reflect upon it fruitfully. Sometimes a series of events is discovered which suggests the idea of law, at other times events gain their meaning from a close study of the persons who are the chief actors, and of their leading ideas and their moral aspirations. The next aim is to rid the student of the notion that there is a dead level of happenings, and to substitute the notion of orderly development. Historical standards of judgment will then take the place of mere abstract ethical ideals in the task of estimating the careers of individuals, or even the character of whole civilizations. A further element is the cultivation of the habit of intellectual detachment, of examining phenomena without allowing personal pre-suppositions an undue weight, and of the habit of seeking in the phenomena themselves a means of interpreting them. All this sums itself up in the general endeavor to bring the mind into a certain attitude which is supposed to be favorable to the discovery of historical truth. If this attitude is induced it is as important a product of the teaching of history as that wider acquaintance with

events which occasionally is taken as the sole object. But even in the introductory courses there are other things to be done. The student should be taught much that enters into what is called bibliography, one must learn the difference between the various sorts of material used by the investigator or reader. One's knowledge of these things should contrast with the common ignorance of the wise use of books. I fear that this object is not yet attained with many students, but in the plans that I am now making for the improvement of the department this is an important element. Further, in each of these courses the students read selections from the "sources." Some attempt is made to introduce them to the elementary practice of historical criticism. This also will be more systematically developed in the future. and an attempt will be made to find the "psychological moment" for the attainment of any given stage of progress. Such work will necessarily be spread over the entire course, and yet since many students never go beyond the first two courses in history, the objects chiefly sought must be gained, in a measure, when these courses are completed. If I were to state in a sentence my aim in teaching history it would be this: to make the students acquainted, and to show them how to make themselves further acquainted, with what has been thought, hoped for and done by the great peoples of the world.

In the conduct of the work in History my aims are: First, to interest students in the study of History. Second, to teach them the leading facts of the period under consideration in such a manner that those facts will remain their permanent possession. My idea is: "Better a few facts remembered, than many facts touched upon and then soon forgotten." I regard it as a serious defect of the instruction in History in American schools and colleges that students are taught to philosophize about history before

they are thoroughly grounded in the facts of history. is not so in Germany. The students come to the University with a preliminary training that fits them to profit from the very beginning from the instruction of the professors. In my opinion the work of the Freshman year should to a large degree consist in laying a foundation of historical knowledge upon which in the subsequent years of the college course the superstructure may be imposed. As far as possible in undergraduate work, believe in teaching students Methods of Historical Investi-Nothing serves so to stir up an interest in historical studies as to tell students that they are doing work of the same sort—differing only in degree but not in kind from that which great historians, such as Gibbon and Fiske. have done before them. Furthermore, they are then in a position, even should they not continue their studies after leaving college, to appreciate the works of specialists; and, should they keep up their historical work, a training in method will be invaluable to them.

#### PHILOSOPHY.

In replying to your request I would summarize my purpose as follows: (1) In the first term Junior year the student is introduced to the data of our subsequent work by the study of anthropology and psychology. The former is a general survey of the *genus homo* with discussion of theories concerning origin, nature and development of man. The latter is an account of the constitution and growth of the human mind by the study of its phenomena. Both subjects are largely descriptive and taken together form the vestibule of the course. (2) In the second term Junior year the two topics are logic and introduction to philosophy. The first treats of the nature and methods of deductive and of inductive reasoning. The student is exercised in the application of these methods and made acquainted with the

fallacies to which they are exposed. As the reason of logic is truth, its discovery and defense is facilitated. The second topic, as the nomenclature implies, is the beginning of philosophy proper and consists in an appreciation of the "science of sciences" or, as Spencer would say, of "completely unified knowledge." It is a survey of the main problems of philosophy and is accompanied with indications of the spirit and methods of philosophic investigation. (3) The first term Senior year opens a wider field for choice on the part of the student, including ethics and the history of philosophy. The work in ethics is descriptive and critical resting upon anthropological data. aim is to get a workable theory of conduct by ascertaining the summum bonum and the means by which it is realized or approximated. The history of philosophy is treated as a history of problems and systems rather than as a history of philosophers, still, the life and times of the philosopher are made to do service so far as they contribute to the education of his system. The main purpose is to put the student en rapport with the world's best thought and thinkers, and by selective thinking to determine lines of further study or reflection. (4) The second term Senior year gives still larger opportunity to those who wish to pursue philosophy. The history of philosophy is continued and theoretical ethics is supplemented by lectures on sociology based upon the psychology and metaphysics of will. The second half of this course is a survey of social institutions. Courses are also offered in the leading systems of modern thought as in Kant, Lotze and Spencer. A seminary course is given in the Philosophy of Religion based on anthropology. (5) As regards the above scheme as a whole, it may be remarked that it moves gradually from the concrete and descriptive to the more abstract and complex, that in all courses classroom question and discussion are encouraged and difficult problems are regarded from various points of view, that the main purpose is to acquaint the student with the philosophic spirit and methods, to enlarge his field of thought and give it a richer content, to render him more capable of sustained and coherent thinking and to lead him to regard philosophy not merely as a literature of knowledge but as the literature of power.

In reply to your request for a statement of the purpose which I try to accomplish through my teaching, I should say to begin with that my purpose varies a good deal with the subjects taught. My work can be divided into three general groups: logic, psychology and philosophy proper, including ethics. In logic my main purpose is to cultivate what may be called the objective standpoint: to teach my pupils that the facts in the world are perfectly definite and the relations between them perfectly rigid, no matter how much good-natured vagueness there may be in one's thought about them. try to make them realize (as few untrained people do) that there is a vast distinction between words or thoughts and the things they refer to, and to learn to describe the same situation accurately in various different sets of words; so that the object will stand out at last absolutely independent of words, yet capable of definite description in them. To secure definiteness of thought as well as mere objectivity I have the students spend a proportionately great amount of time in criticising and correcting definitions which they and their class-mates have made. This helps to cultivate objectivity in a second sense; for they soon learn to be held down to precise and definite statements without getting angry or regarding the demand for precision as mere ill-natured In psychology I try to omit more than the barest ence to speculative problems, and to make the work as rete and practical as possible. I want my pupils when through with the course not to feel satisfied with

any high-sounding abstractions about "cognition," "emotion," "volition" and the like, but to realize that there is a reason, whether we can find it or not, why real, concrete people about us act as they do and feel as they do, why they do not all do the same thing under the same outward circumstances, and why even the same person may act in one way at one time and in another at another. It seems to me that such concrete work is not only interesting in itself, but that it makes for practical wisdom and for charity. In philosophy proper I try to familiarize the students with the great problems of all ages; to make them see their logical relations, and the psychological conditions that made people think of them; and yet feel their inspiration. I want them most of all to learn to look at the problems which are hard to reason out, or which perhaps cannot be reasoned out at all, with calmness; and to realize that in all our ultimate convictions we live, not by sight, but by faith. These purposes are by no means always present. In the detail of his work one is apt to forget about ultimate purposes altogether; but when questions of ultimate aim do arise these are about the answers I give myself.

Because of the very broad field covered by the department of philosophy it is necessary to give both a general and special statement. The general purpose I have before me in teaching philosophy is twofold; namely, theoretical and practical. First, I try to develop in the student's mind an interest in pure theory as such, for I believe that no subject lends itself so well to this end as philosophy. Here the world is presented to us wrapped in all that mystery which has ever and must ever excite in us in response what the Greeks called "Wonder" and "Love of Wisdom." Secondly, I aim to teach the student to win for himself that broader outlook on life which may be called "Living for the Universal." That is, he should be taught to think out the deeper prin-

ciples of life's problems and intellectually to assign to these principles an absolute value, and, on the other hand, so to broaden his own selfhood and personality that his fellow men, his nation and, ultimately, the very world may appear to him part of his individual life. Thus in the Theory of Knowledge he learns the nature of truth, in Metaphysics the universal laws of nature and of mind, in Theoretical Ethics the nature of the good, and in the Philosophy of Religion the nature of God. The special purposes to which I refer. are the following: In Logic, my is to teach the student to think what implications his words carry with them; in short, to think consistently. In Psychology he should learn those general laws of the mind's growth, health and activity which will make him see the part heredity and the daily life and environment play in actually creating our present and future selves. In the Introduction to Philosophy I try to show the student how, both in theory and in practice, we are but interpreting the world, and how he should learn to study this interpretation as such. In short, he should work out for himself the principles of truth, of science and of conduct. and should see the nature of religion and its relation to science. Of course it is impossible to do here more than to make a beginning. Unless these be made as concrete as possible, Juniors and Seniors are still too young to grasp the wide abstractions of philosophy. But I try, at least, to create in their minds series of problems and to start them in what has seemed, to the best thinkers of the century, the right direction. Only their after life can complete this beginning, for experience has shown over and over again that our mind requires years to comprehend and to think through any very great abstraction, and philosophy is full of such. In Metaphysics, given to the Seniors (it will hereafter be limited strictly to those having shown, in Junior year, some ability for abstract thinking), I continue the work of the Introduction to Philosophy.

#### MATHEMATICS.

I understand that I am to tell what I desire to accomplish as a teacher rather than discuss the educational value of the study of mathematics. Every teacher should get the attention of the student. He must have the respect of every one in his classes. This requires in him a mastery of his subject, a cordiality toward the student, and an enthusiasm coming from an intense interest in the subject as well as in the He must be interested in his subject for its educational value and in the student for the training he needs. Each student should feel that his instructor is interested in him. When the student is really interested, the teacher should require as accurate scholarship from each pupil as he is capable of giving. He should be directed to see what it means to be a scholar. The subject of mathematics is adapted to teach men to think logically, to train the mind to thoroughness and accuracy. When the teacher is satisfied that his pupils are improving sufficiently in their methods of study and becoming more independent in their thinking he should lead them out into broader fields, embracing more original and independent thinking. The student must trust his own strength and find out his own peculiar talents. Some need encouragement, others restraint. I believe that in undergraduate work the teacher should proceed along these lines. These aims for the first two years in mathematics will strengthen the student for his other years in college whether he studies mathematics or leaves it for the other departments. In the more advanced elective classes I expect to lay a good foundation for graduate work.

## CHEMISTRY.

What I aim at in teaching chemistry, is, first of all, to present the subject matter. My students are to understand the laws of chemistry. They are to understand the consti-

tution of substances around them, the properties of the simpler substances that go to make them up. They are to have some notion of their industrial applications, especially in a city of so many chemical industries as Cleveland. From their laboratory work they are to learn to form their own judgments, and to base their systems of chemical laws upon their own observations, rather than upon the authority They are to develop those forms of thinking of others. that will lead them to correct judgments of things material —that they shall for example, never have the remotest suspicion that something is to be gotten out of nothing. Secondly, our subject presents problems which are of training value as well as of distinctly chemical value. my divisions made up from the two lower classes in the college, whose work is really still a part of their academic training, I keep in mind that the purely reasoning part of our work is necessary for them. I quote to them the lines from Homer, "So combine the present and the past that you may rule wisely in the future." With older students I naturally minimize this second consideration and lay most of my stress upon a good foundation of chemical information and chemical thinking, for what I have mentioned above has been done for them by others. Besides these two views of the matter are little things that hardly need be mentioned,—knowing thoroughly and keeping an eye upon the individual to lend him all possible aid in developing himself, encouraging the earnest ones, prodding the quick thinkers who so often become careless workers, turning down the self-satisfied ones. All this I do in class and out. And as many of our student body still lack much external polish, I acknowledge the fact to myself and act accordingly. There are also other things which it behooves a good citizen of any community to do, no matter what may be his special relation to it, and these things I strive not to leave undone in the community in which I act as instructor.

It is my aim in teaching chemistry to make it as much as possible a culture study. This cultural side is emphasized particularly in the elementary courses. Instead of presenting to the student a number of abstract facts relative to the science, he is led up to the subject inductively. means of experiments performed by himself in the laboratory, he is taught to observe closely, to see the relation of cause and effect, and to draw his own inferences from observed phenomena. He is thus enabled to gain some idea of the manner in which the science has developed, and of its empirical nature. study of physiological chemistry the student is taught the chemical nature of the animal body, the nature of the changes which the food undergoes in the process of digestion and assimilation, and the adaptability of the different foods to the needs of the body. The fact that the laws and principles of this branch of chemistry are not yet well defined, but are more or less open to controversy, is emphasized. Although not an exact science, still the student gains a vast amount of information which is of great helpfulness. In the more advanced courses, as in quantitative analysis, less emphasis is necessarily placed on the cultural side. The student here applies himself to the carrying out, as accurately as possible, of certain well defined methods of separation and estimation of chemical substances. of this nature, however, he learns the necessity of exercising a care and patience, which is of great value in any vocation in life. Nothing is better adapted to uproot careless habits and to inculcate system and alertness in the individual.

#### PHYSICS AND ASTRONOMY.

In answer to your request I have little more to say than that the purpose of my instruction is to make my students, so far as may be, acquainted with the branches of study for which I am responsible to the college. In other words, I

aim to teach physics as well as I know how, and to teach astronomy as well as is possible to me in the limited time which can be given to that subject.

so to conduct those courses. is my aim which I have the privilege of giving instruction, as to impress upon the mind of the student the importance of the subject, and to arouse in him such an interest as shall lead to a continuation of the work along more advanced lines. I endeavor first to present a broad and comprehensive survey of the field which the subject covers, then to lead the student to group the principles and to adjust these principles in their proper relations. In the study of the fundamental laws of physics, I open to him as many avenues of approach as possible, by directing his attention to everyday phenomena, by lecture room illustration, by class room analysis and discussion, by metrestick, balance and pendulum in the laboratory. I try to have him see in the equation the physical phenomenon for which it stands, use intelligently the laboratory tools, recognize in kind and amount the errors to which he is liable and the limitations within which he can know even those things which seem best understood. I try to have him grasp the great truths of nature's laws, not the methods of some particular text book. I call to his attention the varied applications of these laws to the affairs of every-day life, and have him note the fact that the wonderful material development of the past century had its beginnings in the workshop of the physicist. I do not lead the student to think that the subject is valuable only as a course in mental gymnastics, nor that it is a storehouse of interesting information easily assimilated, but that it contains principles of intrinsic worth, the mastery of which will well repay careful and continuous study, and that it offers rich reward to any who attack the problems still unsolved.

### BIOLOGY.

College work outside of the laboratories is mainly bookstudy, and students unconsciously acquire the habit of depending on books for their ideas. It is thus a curious anomaly that while books are essential for scholarship in every field of investigation, their use is sadly abused by nearly all young students, who are apt to cram for information when they should read for ideas. In the biological laboratory we try to correct this abuse of books by bringing the student face to face with nature and making him shift for himself. In Elementary Biology certain types of living animals and plants-about eight in all—are studied in the natural order of development, beginning with the simples, and passing up the scale. Specimens of each of these forms—some alive, others prepared with different ends in view—are given to the student with certain simple suggestions and directions, and he is required to find out all he can regarding habits, structure and functions. At first the student (the young woman especially) is helpless, lacking sadly in initiative, and feels almost defrauded because the desired information cannot be obtained from a book, which has been staff and crutch so long. This bewilderment breaks away slowly, and the power of initiative grows (though in some cases, especially with women, very slowly). My object is to teach students to gather ideas for themselves from nature never to cram facts nor to cover ground-to use all or optical instruments. (such as mechanical reagents and books) rationally, as a carpenter should use a tool, to use facts observed as a means of understanding or interpreting some of the simple processes and When the student has learned how conditions of life. to work, enthusiasm follows rapidly, and I have known the listless starer at the ceiling eventually to devote his life to the study of nature. On the other hand, where dependence on books or assistance from fellow students has become almost ingrained, it is difficult to break up the habit and to replace it by a better kind of intellectual fibre, in the short time at command.

#### GEOLOGY.

The main purpose in mind in giving instruction in geology and geography in this University, is to teach the students something about those subjects. Any subject thoroughly studied gives important mental training, a large part of which is common to all, while each subject has its own especial value in some (generally minor) ways. sciences are youthful, the student is brought face to face with a subject which is rapidly growing and in which there is a certain stock of well-ascertained knowledge; a certain stock of theory from which advancing knowledge is eliminating what is unsound; and beyond a field of speculation giving glimpses of what additions to knowledge may bemade in the future. Geology is not an exact science, and the effort is made to distinguish carefully between theory and fact; to have the students go themselves through the processes of reasoning by means of which geologists have arrived at the opinions they hold; to point out the mistaken beliefs and unfortunate controversies of the past, and to arouse an interest in and knowledge of their surroundings. It is believed that the study is especially adapted to promote quickness and accuracy of observation, and promptness in drawing sound conclusions; that it is also well adapted to promote a lack of confidence in one's own infallibility, by no means a valueless notion to impart to youth.

#### PHYSICAL CULTURE.

The purposes we desire to obtain through the instruction in the gymnastic department can be summed up in the following words: Health, strength, physique, grace of movement, self-control, memory, mental rest, recreation. It is my purpose to have the department of physical education furnish the students the best opportunity for physical development and thus make possible a higher development, mentally and morally. The probability is great that a stronger mind and cleaner character will be the indirect results of a physical education, if there is kept before the student a high ideal of physical development. Therefore my purpose is also to influence the students to seek the attainment of a physical development that will give them more symmetrical and healthier bodies, which can endure harder tasks and which will be more fully under the control of the will.

These statements are exceedingly significant of the present condition of the higher education not only in Western Reserve, but also in many other colleges and universities. The statements are significant of the slight attention that is paid to scholarship as scholarship, and of the great regard that is paid to scholarship as a means for the enrichment and enlargement of the highest relationships. On the whole, it is made evident and impressive that each of our associates regards his teaching not primarily as a means for promoting scholarship, but primarily as a means for enriching human character. It is also significant that so little is said with reference to the preparation of students for professional service. No word is written respecting the duty of the college to prepare men for the ministry, or for the law, or for other professions. The one common note struck is the note of humanity. This note appears in different forms, but is always significant and impressive, as the following extracts prove:

[Miss Perkins: Latin] "Aside from those engaged in teaching, women make up the great leisure class of the community. If they know well the language, literature, government and social conditions of a people so vitally

connected with the literature and history of subsequent nations, as were the Romans, they are able to enjoy comparative work in various languages, and to appreciate the literature, government and social conditions of their own country in a far wider degree." [Dr. Fowler: Greek] "The purpose of such knowledge is not to limit the sympathy of the student to ancient times or make him less alive to the affairs of his own time, but to give him, thorough knowledge of the history and literature of a singularly gifted people at a remote period, the ability to regard what goes on about him as a whole, to see not merely the historical and literary phenomena, but also the relation of such phenomena to each other, and their effect upon the development of humanity." [Dr. Fowler: History of Art] "It is of importance to have our students appreciate the value of the beautiful and understand that the art of a nation is part of its life." [Dr. Warren: Romance Languages] "The object is to show how foreign nations approach the various problems of life. Their point of view is presented in their own words and with their own arguments. The practical application of their ideas to the family, the state and religion are also considered." Deering: German 'I regard German literature as the storehouse of some of the world's best thought, and especially as the record of German civilization, the embodiment of the highest German ideals of life and character, and I seek to bring these ideals home to the student for the development of his own culture and character and power." [Dr. Potwin: English "While our efforts are directed to appreciation as the immediate object, it is of course understood that the ultimate object, reached indeed without aiming at it, is to discipline and enrich the soul by the power and beauty of the best writing, and the best interpretation of life." "In all the courses in literature, the study is to a great extent comparative, and students are made to

see that the literature of any period is the expression of the political, social and religious life of the nation." Baldwin] "My general aim in teaching is to develop in my students the power of self-expression. I have attempted to make the study of literature constructive and synthetic rather than wholly critical and analytical. Only by so doing, it seems to me, can a man gain an enlarged power in the expression of thoughts in fitting form." [Professor Bourne: History] "If I were to state in a sentence my aim in teaching history, it would be this: to make the students acquainted, and to show them how to make themselves further acquainted, with what has been thought, hoped for and done by the great peoples of the world." [Dr. Curtis: Philosophy] "The main purpose is to acquaint the student with the philosophic spirit and methods, to enlarge his field of thought and give it a richer content, to render him more capable of sustained and coherent thinking and to lead him to regard philosophy not merely as a literature of knowledge but as the literature of power." [Dr. Aikins] "In philosophy I try to familiarize the students with the great problems of all ages; to make them see their logical relations, and to see also the psychological conditions that made people think of them; and yet feel their inspiration. I want them most of all to learn to look at the problems which are hard to reason out, or which perhaps cannot be reasoned out at all, with calmness; and to realize that in all our ultimate convictions we live, not by sight, but by faith." [Dr. Gruener: Chemistry] "As many of our student body still lack much external polish, I acknowledge the fact to myself and act accordingly. There are also other things which it behooves a good citizen of any community to do. no matter what may be his special relation to it, and these things I strive not to leave undone in the community in which I act as instructor." [Dr. Tower] "It is my aim, in teaching Chemistry to make it as much

as possible a culture study. The student learns the necessity of exercising a care and patience which is of great value in any vocation in life. Nothing is better adapted to uproot careless habits and to inculcate system and alertness in the individual." [Mr. Woodward: Physics] "I try to have the student grasp the great truths in nature's laws, not the methods of some particular text-book. I call to his attention the varied applications of these laws to the affairs of every day life, and have him note the fact that the wonderful material development of the past century had its beginning in the workshop of the physicist." [Professor Cushing: Geology] "It is believed that the study of geology is especially adapted to promote quickness and accuracy of observation, and promptness in drawing sound conclusions; that it is also well adapted to promote a lack of confidence in one's own infallibility, by no means a valueless notion to impart to youth." [Miss Morse: Physical Culture] "The purpose we desire to obtain through the instruction in the gymnastic department can be summed up in the following few words: Health, strength, physique, grace of movement, self-control, memory, mental rest and recreation." [Mr. Wehr] "It is my purpose to furnish the students the best opportunity for physical development and thus make possible a higher development, mentally and morally. The probability is great that a stronger mind and cleaner character will be the indirect results of a physical education, if there is kept before the student a high ideal of physical development."

These inferences touching the larger humanity which our associates aim to promote represent all that can be desired. The college has too often been supposed to be narrowly scholastic and simply intellectual. The intellectual element is of extreme importance, but no one element of man is to be regarded as at all important compared with all

the elements that constitute humanity. Western Reserve University in its undergraduate departments, through its teachings and its teachers, is holding before its students large and high human purposes. The aim is to make such human beings that they may represent a character which approaches divine relationships.

What subjects of study in the college curriculum are the best fitted to secure trained mental power represent the most difficult problem in education. Certain of these courses, it is now generally recognized, discipline certain powers of the student. For instance, linguistic studies discipline the power of discrimination and of interpretation; scientific studies the power of observation; mathematical and philosophical studies the power of abstraction; literary studies the power of appreciation. Each of these studies trains the powers which every other trains, but each of these studies also trains certain powers in particular. The mere statement, therefore, of the courses of study which are taken by the larger part of the students in any college becomes significant. The report, therefore, of the Dean of Adelbert College, in reference to the number of students who are enrolled in the different courses is exceedingly significant. It should be said that all the studies of the Freshman year and a part of those of the Sophomore are required. Latin, Mathematics and English represent studies required of all Freshmen. Summarized the statement is as follows:

	Sen- iors.	Jun- iors.		Fresh- men.	Spe- cials.	Total.	Per Cent.
Astronomy	4	3				8	4
Biology	10	5	47		6	68	36
Chemistry	7	9	14	19	2	51	27
Economics	11	18			3	32	17
English	27	32	54	<b>6</b> 6	8	187	97
French	9	24	26	II	2	72	37
Geology	16	6			2	24	12
German	2	5	42	52	4	105	54
Greek		3	16	22		41	21

	Sen- iors.	Jun- iors.	Sopho- mores.	Fresh- men.	Spe- cials.	Total.	Per Cent.
History	19	37	3	I	6	66	3 <b>5</b>
Latin	3	4	28	53	2	90	46
Mathematics	I	7	44	53	3	108	55
Philosophy	<b>6</b> 0	57	1		4	122	63
Physics	3	4	16	• • • •	2	25	13

It may be interesting to compare these percentages with a similar condition which obtains at Harvard College, where the similar record is as follows:

•	Sen- iors.	Jun- iors.	Sopho- mores.		Spe- cials.	Total.	Per Cent.
Astronomy	50	32	17	3	6	108	5
Biology	40	68	70	56	17	251	13
Chemistry	75	118	124	107	16	440	23
Economics	393	283	351	15	89	1131	61
English	498	604	726	<b>6</b> 01	209	2638	142
French	108	130	271	358	71	944	51
Mineralogy	7	5	3			15	I
German	69	94	177	300	41	681	36
Greek and Latin	107	83	170	265	28	653	35
History	304	288	540	541	159	1832	99
Mathematics	38	28	55	154	22	297	16
Philosophy	237	230	144	18	49	678	36
Physics	20	20	66	59	22	189	10

The statements are not, however, unique. In most colleges it is found that the least popular studies are the scientific, including Mathematics, and the most popular are the courses in English, History and Economics. The lack of popularity belonging to the scientific studies is a result precisely opposite to that which twenty-five years ago, when those studies were introduced in large ways into the college curriculum, was at once feared and hoped for. It is, however, always to be said that the value of a subject to a college student does not depend upon the subject itself. Its value depends quite as largely upon the method of teaching and upon the personality of the teacher. In fact, in my judgment, the personality of the teacher and the training given through this personality, are of far greater value

in the creation of trained mental power than the subject itself. In the selection, therefore, of teachers the personality of a candidate is superior to the wealth of his scholarship.

The choice of the subjects which a student should pursue under a system of free elections is of vital value. dent should select each study in reference to every other. proportion should be maintained; he should select all studies in reference to their cumulative worth,-continuity of impression and increasing enrichment should result. ardness is a constant peril. Constitutional indolence is a condition which creeps into the college from outside academic walls. I believe that the students of our undergraduate colleges, however, do usually select courses of study with foresight, breadth, and moved in their selection by high human aims. The members of the Faculty are eager to give aid to students in making their choices; and each member is obliged to give in writing his approval of the choices which the students make of the courses which he The elective system is the right system of both giving and receiving scholastic instruction; but the system needs a watchfulness, which, without being the espionage of the detective, shall receive the healthful supervision of the older and wiser friend.

In my last annual report I referred to the desire entertained by the Trustees of increasing the salaries of the professors in the undergraduate colleges and in the professional schools. I am glad to be able to express the hope that an increase of certain salaries may be made in the next academic year. Certainly whatever increase can be made will only serve to lessen the debt of gratitude,—it can not fully repay it,—which the legal bodies owe to the members of the various faculties. The American community has not yet come to appreciate the value of education. Therefore those who

are concerned with giving education must look for other reward than the pecuniary for their services. It is, however, fitting for the private college and university to make as large a recompense as is possible. For the teacher does not simply give instruction or time: he gives himself. Any payment of money therefore, however large, is not compensation, it is only a condition. A salary should be sufficient to allow a teacher to live in a fitting way and also to provide against contingencies of ill health and death.

The number of hours which the teacher in the American college spends in giving instruction varies from five to twenty hours a week. The number of hours also differs, and differs worthily, in different subjects. Perhaps an average would be ten hours. Colleges, of which the endowment is small, frequently ask their teachers to instruct three or four hours a day, and colleges which are well endowed are not infrequently content with asking their associates to teach only five hours a week. Subjects, such as elementary languages, the teaching of which represents the text book and the mere repetition of exercises, do not make that draft upon the intellectual powers which certain topics in Philosophy and in History make. Many a teacher, too, regards each recitation as a crisis for which he must specially prepare Other teachers are content with regarding each exercise or lecture or recitation as an ordinary service for which no special preparation is necessary. Certain teachers teach not with the intellect only, but with every part of The number of hours spent in recitatheir whole being. tion by the teachers in the various departments of our under-graduate colleges is as follows:

#### WESTERN RESERVE UNIVERSITY.

Department.	Number of Teachers.	Hours' T First Semester.	eaching: Second Semester			
Biology	. 2	12	18			
Chemistry	. 3	30	21			
Economics	. I	15	15			
English	• 5	66	66			
French	. 3	33	27			
Geology	. I	9	12			
German	. 4	45	42			
Greek	. 2	21	21			
History	. 2	21	27			
Latin	. 2	33	30			
Mathematics	. 3	39	3 <b>9</b>			
Philosophy		21	30			
Physics	. 2	15	18			

The larger part of the students in the under-graduate colleges are, as is also the case in most American colleges. received upon evidence of their fitness as presented in a certificate of the principal of the school in which these students have prepared for college. The Faculties have for some time felt the need of a more adequate knowledge of the personalities and scholastic conditions which constitute the schools whose graduates are entering the under-graduate colleges. The members of the Faculties have, therefore, in the course of the last year visited no less than eighty-six The reports which have been made of these schools. regarding the character of these schools are on the whole favorable. Our representatives have been received with cordiality. Every opportunity has been placed before them for learning the character of the work done. One advantage of such visits lies in the fact that the closeness of association between the colleges and the high schools is promoted. The narrower the gap that is made between stages in education the better it is for the whole educational system, and also the greater is the number of students who are inclined to pass over this division.

The average age of admission to Adelbert College and the College for Women is now approximately nineteen years. This age is on the whole too late. The man who enters at this age, completing a four years' course, finds himself at the age of twenty-three ready to take up his professional studies or to enter business. If he enter the clerical calling, he is twentysix before he can assume a pastorate. If he become a lawyer, he is twenty-eight before he can begin a practice sufficiently ample to support a family; and if he become a physician, this age is increased to thirty. The cause of the lateness of entering life upon the part of the college graduate is found, however, not so much in the high school or in the college as it is in the earlier stages of education. of eight or nine is not so far advanced in his education by two years or at least by a year, as he ought to be. Studies are repeated and re-repeated in the first years, and other studies are deferred which should be taken up at an earlier Studies also are included in the grammar school which might well be excluded. In particular I refer to certain studies in arithmetic. But the cause of this lateness lies not simply in the course itself. It lies rather in the lack of wisdom on the part of the teachers of children in their earlier years. The principals and superintendents of our public schools are becoming aware of this condition and are doing much to remove its defects. No child of course should be unduly urged. The body should be kept in vigorous and constant health. Each student should be adjusted to the conditions of his studies at the age of eight as well as at the age of eighteen, but the wise teacher should be able to advance the stronger pupil and also to adjust tuition to those who are less proficient. When it seems wise to the American people to tax themselves more heavily br the education of their sons and daughters, their sons nd daughters will be able to enter life at an earlier age as to make a more adequate contribution to life itself.

The earlier entrance of men into their professional life is better secured by a finer adjustment of the first years of education than by the shortening of the college course itself. At least for the boys and girls in the under-graduate colleges of Western Reserve University, a shortening of the college course to three years would not be advisable. If in certain colleges it is advisable, in ours it cer-Not a few students enter these colleges who tainly is not. require at least half of the Freshman year to adjust themselves thoroughly to the conditions of college work. which ought to have been done thoroughly in the fitting school, has been done superficially. Students who are thus conditioned our colleges ought to receive and are glad to receive. The training acquired by the members of the Freshman class in their fitting school, and the degree of mental culture and power possessed by these students, are in advance of that which belongs to the Freshman of most colleges in the States of the Central West, but these advantages are not so great as are possessed by the students entering the oldest colleges of the United States. Therefore, for the Western Reserve colleges at least, a shortening of the college course to three years is not to be thought of. also to be said that the longer is the college course under ordinary conditions, the richer are the results for the student. Even if the student should be able to complete the work in a technical way in three years, it is to be remembered that the completion of the work in this way represents only a share of the worth of the training which he receives from This worth is found far more in the teacher the college. than in the teaching, and also it is found in no small degeee in the association of the students with each other. if the highest and richest worth is to be secured for the student through a college course, no shortening of that course is to be considered in the colleges of Western Reserve University.

The truth of these general statements should not, however, be suffered to militate against the further proposition that students may enter the college who should complete the course in three years. The men who should complete the course in three years are usually those of advanced age or of advanced attainments, or those who, by reason of special conditions, desire to prolong beyond ordinary limits the time of their professional studies. In respect to length of the college course, as in respect to every other element of the college, it is well to treat each student as an individual. Those conditions which best affect him should be maintained for and by him.

It may be added that without doubt the poorest of the four years of the college course is the Sophomore. This year is too often merely the prolongation of the Freshman year rather than the embodiment of the seriousness and the earnestness of the last two years of the course. I would suggest that every endeavor be made to give to the Sophomore year that freedom of electives in studies and that responsibility of personal conduct and character which characterize the last two years of the course.

Under-graduate life has become a very highly organized life. In these colleges, as in most colleges, there are organizations of various sorts. In Adelbert College are five national fraternities, two class fraternities, and one honor fraternity; in the College for Women are three fraternities. In Adelbert College there are also the Camera Club, the Young Men's Christian Association, the Athletic Association, the Press Club, the Literary Society, the Basket Ball Team, the 'Varsity and Class Foot Ball Teams, Class Base Ball Teams, the College Republican Club, the Glee Club, the Mandolin Club, and the Adelbert Orchestra. In the College for Women are the Dramatic Association, the Present Day Club, the Young Women's Christian Association, Basket Ball Clubs, Glee Club, and Mandolin Club.

But perhaps the most important of under-graduate organizations is the athletic organization. This organization represents a most interesting phase of collegiate development. Whatever evils may be connected with athletic sports in certain colleges, I am glad to be able to say that these evils do not, I think, seriously affect Western Reserve. No doubt certain men waste time in these sports. but the number who waste time is small in comparison with the number who receive advantages. A college can not give too much attention not only to the strong men becoming stronger in body, but also to the men who are not strong becoming strong. The physical type of the American college man and woman has vastly improved in the last few decades, and one cause of this improvement lies in the proper interest in foot ball, base ball, tennis, golf, and similar sports.

At first sight all these organizations of the students might seem to be but parasites upon the central organization of the college itself. Examination and reflection, however, prove that this inference is not sound. The college is not simply a preparation for life; it is life. Relationships which students bear to each other represent the relations which men and women bear to each other. Therefore, whatever of responsibility can be placed upon the under-graduate represents an advantage which the college should give to him. To this responsibility the student body inevitably responds with enthusiasm. As a rule the student will do and will give whatever one expects. expects pranks and indolence and is ever outlook for pranks, and is constantly fearful of indolence, these results will emerge. But if, on the contrary, one expects good work from the students, giving them the proper conditions for good work, and setting before them work to be done well, proper results will eventuate.

good order of the colleges, and the increasingly good order of our professional schools, are worthy of the commendation of the Board of Trust.

It is not the function of the college in and of itself to give board and room to students. The college is not a boarding house. But it is a function of the college in designing to secure intellectual and ethical results for its students, to see that all proper physical conditions surround the students. It is most difficult for the medical and dental students to find such conditions. These students are obliged to and board in a place near their schools. that part of the city where these schools are placed the demand for accommodations is the largest. therefore, are high and the accommodations are not usually the best. The executive officers of the faculty, and also the members of the faculty, make every endeavor to find proper homes for the students, but the peril of not finding proper homes is great. If one who wished to make a proper financial investment by doing a good service to humanity should see fit to build a dormitory near the Medical College Building, it would not be doubtful that the returns upon the investment would be adequate, and a genuine service would be rendered for medical and dental students and through them for humanity. A simple building of brick, of small rooms, simply furnished, would prove to be a great

Through a formal arrangement made with the principals of Western Reserve Academy in the year 1896-1897, this is the last year for which the trustees of Adelbert College of Western Reserve University are to bear a special responsibility for the conduct of the Academy. This result is one which will undoubtedly work for the advantage both of the Academy in Hudson, and of the under-graduate colleges and professional schools in Cleveland. In each of the eighteen years since the college was moved to Cleveland, the follow-

ing number of students have been received from the Academy into these under-graduate colleges:

1882,	6	1888,	5	1894,	2
1883,	8	1889,	8	1895,	6
1884,	11	1890,	IO	1896,	6
1885,	5	1891,	7	1897,	2
1886,	I	1892,	9	1898,	5
1887,	3	1893,	8	1899,	4
	Total,	-	-	106	

It is to be said that one result of the educational movement of the nineteenth century has been the differentiation of education. The fitting school has been differentiated from the college, and the college from the professional school. Formerly the professional school was a prolongation of the college course, and formerly in too many colleges—and still in too many—the fitting school was an integral part of the college. It is therefore well that the last vestige of the association between the fitting schools and the undergraduate departments of Western Reserve University is to pass away. college can now make an appeal to all academies and high schools for work that shall fit their graduates for admission to our Freshman classes. The personal interest, however, of the members of our Board of Trust in the Academy that is to be carried on in the old college buildings at Hudson will not lessen.

The Graduate School of Western Reserve University should receive the special interest of the Board. The difference between a graduate school and an under-graduate college is marked. An under-graduate college is concerned primarily with the training of character. Its purpose is to make men. The graduate school is concerned primarily with the training of the intellect. Its primary purpose is to make teachers. The undergraduate college uses personality as its chief instrument or condition. The graduate school uses scholarship as its chief tool. The under-graduate

colleges take into view primarily ethical conditions, the graduate schools intellectual conditions. The under-graduate college is concerned with enriching American life through sending forth into it each year a body of noble men who are also trained thinkers. The graduate school is primarily concerned with training leaders who in their professional career, and especially in teaching, shall give to American society the highest intellectual and ethical results.

The larger part of the students who enter the graduate schools of the American colleges are poor in purse, but of course they are among the ablest of men in intellect. They cannot look forward to adequate compensation in their career as teachers, and therefore whatever advantage can be offered to these students, both men and women, in the graduate school, ought to be given. The establishment of fellowships and scholarships which should have at least the value of the annual fees for tuition would prove to be of great advantage. I beg to call attention in particular to the report of the Dean of the Graduate School regarding the work of the present year. I may also say that the applications for admission to the School next year are far more. numerous than they have usually been at this season of the academic year, and also that the applicants represent intellectual training of a high order.

The Medical Faculty has considered the method of organization of the executive work of the Medical School, and as a result adopted the following minute:

In view of the development of the medical course to specially with the attendant details necessary for carrying theme in a proper manner, and especially in confit the fact that, after next year our preliminary ats will be so far in advance of those at present, will be necessary on the part of somebody ar workings of the institution in order to

make a success of our school. Some new plan must be devised whereby some person will devote a large amount of time to the supervision of our work and shall be responsible for the harmonious development of our institution. matured consideration your committee believes the wisest plan will be to appoint an executive officer of the Faculty, who perhaps would better be the Dean, as the official head of the school, whose duty it shall be to have the general supervision of the entire business working of the college, who shall keep in touch with all the departments and shall know what they are doing and how satisfactory the work in the different departments is to the students. In other words, he shall be the business head of the college. He shall employ an assistant, who shall be a stenographer, whose duty it shall be to do all the detail work assigned to him by the Dean or Secretary of the Faculty. The office of the assistant shall be in the college building, where he shall spend all hours not employed in the outside work of the institution. Under the direction of the executive officer he shall make all purchases of college supplies and distribute them as required, have charge of all college correspondence, under the direction of the Dean and Secretary, shall be expected to receive and show visitors through the college building, shall from time to time collect such data and information with reference to other institutions as may be desired and lay the same before the executive officer or the Faculty. He shall perform such other work as may be required of him by the executive officer, or the Faculty, as a whole or as committees. It is not proposed that his work shall interfere with the present salary or duties of the Secretary, but it is hoped that the labor of the latter in the direction of correspondence, etc., may be materially lightened.

It seems to your committee that such a man can be kept extremely busy, and that the entire organization of the school can be put upon such a business basis as will matericolleges take into view primarily ethical conditions, the graduate schools intellectual conditions. The under-graduate college is concerned with enriching American life through sending forth into it each year a body of noble men who are also trained thinkers. The graduate school is primarily concerned with training leaders who in their professional career, and especially in teaching, shall give to American society the highest intellectual and ethical results.

The larger part of the students who enter the graduate schools of the American colleges are poor in purse, but of course they are among the ablest of men in intellect. They cannot look forward to adequate compensation in their career as teachers, and therefore whatever advantage can be offered to these students, both men and women, in the graduate school, ought to be given. The establishment of fellowships and scholarships which should have at least the value of the annual fees for tuition would prove to be of great advantage. I beg to call attention in particular to the report of the Dean of the Graduate School regarding the work of the present year. I may also say that the applications for admission to the School next year are far more. numerous than they have usually been at this season of the academic year, and also that the applicants represent intellectual training of a high order.

The Medical Faculty has considered the method of organization of the executive work of the Medical School, and as a result adopted the following minute:

In view of the development of the medical course to four years with the attendant details necessary for carrying out the scheme in a proper manner, and especially in consideration of the fact that, after next year our preliminary requirements will be so far in advance of those at much more time will be necessary on the part to direct the proper workings of the incite

intimate acquaintance with the conditions of medical education both in this neighborhood and throughout the world.

In both the Medical and Law Schools the number of men who have received the advantage of a college training increases. In the Law School this year are twenty-five students who have graduated from a college before beginning the study of the law, and twenty-five others have had at least one year in a college. In the Medical School thirty men have college degrees, and twenty-one others have attended college at least for a time. This number, in the case of each institution, is larger than obtained a few years ago. It is of timely advantage, particularly in the Medical School, that this is the condition. For beginning with the opening of the academic year 1901-1902 no one is to be received into the Medical College who has not had a training at least equivalent to that represented by the first three years in a good college. preparation for this advanced standing the Faculty has been exercising much care in the admission of students, and also has taken care to see that the notice of the advanced standing has been widely spread. The advantage which the School has received through assuming this advanced standard is already apparent in the increased reputation which the School has secured as a means of giving good medical training.

The burdens which the professors of the Medical Department assume in giving of their time and strength to the instruction of their departments are great. They are heavier than the Trustees ought to ask their associates of the Medical Faculty to bear. A former member of the Board, Mr. John L. Woods, during his life time gave to the school not only the building which cost at least a quarter of a million dollars but also funds of the sum of a hundred and fifty thousand dollars more. It is devoutly hoped that

in the near future another benefactor of the University, equally wise and generous, may arise

The advances made in the conditions of admission to the Medical and the Law Schools have not obtained in the Dental School. The intellectual character and training, however, of the men received into the Dental School is of a high order and the results secured in and through these students are of exceptional value. The Faculty, through its executive officers, the Dean and the Secretary, are careful to admit only those who hold out promise of becoming efficient dentists. The training given in the Dental School is not a narrow and technical one, but dentistry is taught as a specialty of medicine.

It is with an economy that is not economical that the Dental School is able to meet its expenses each year from the fees for tuition and from the receipts of the dispensary. In certain years it has not been able to meet these expenses by a small sum. An endowment of fifty thousand dollars for the school would give relief to the officers and promote the worth of the training offered.

Among the immediate needs of the University a year ago was that of a Chapel for the College for Women. This need is now to be filled. Through the generosity of friends a Chapel is to be built in the forthcoming year. The architect, Mr. Charles F. Schweinfurth, (who has already served as the architect of four buildings of the University), furnishes the following description—certain minor changes may however still be made in the plans:—The structure will be Perpendicular Gothic of the middle period in design. The plan consists of "The Chapel" or Nave, 45 x 84 feet, divided in seven bays, with six open timber trusses, ceiled between with diagonal boardings. The Tower, 16 feet 6

inches by 16 feet 6 inches, forming the entrance to the Chapel and to "The Hall," and thence to the Class room and Study, is placed at the south side and forms the attachment of the Bible study and class rooms to "The Chapel." The Study is 12 feet 6 inches by 21 feet 6 inches, Class room 25 x 30 feet, and opening from Class room through a broad arch is the Library, 14 x 25 feet, fitted with book shelves, and space for reading tables and chairs.

"The Chapel" contains an organ chamber 12 x 20 feet, a choir 10 x 45 feet raised seven steps, and the platform 6 x 35 feet raised three steps from Chapel floor, and will seat comfortably five hundred persons additional to choir and plat-There is a northeast and northwest entrance, besides the Tower entrance. The eaves are 28 feet and apex of gable 54 feet from grade. The Chapel is lighted with a large window in the east gable and a series of seven windows These windows have wide splayed jambs in each side wall. and are filled with stone tracery divided with mullions and transoms and are to be filled with colored glass. The walls are panelled with moulded wainscot 6 feet high, plastered above same to the crenelated cornice, the interior wood work being The Tower is 45 feet high and forms the main entrance through a heavily moulded archway with a memorial panel and carving over same. The floor is marble mosaic. the walls brick with stone trim around the openings. panelled ceiling is 33 feet above the floor. From this Tower is the entrance to "The Chapel" and the working rooms. "The Hall" is provided with a stone mantel and opposite, a bay, 9 feet 6 inches by 12 feet, with a semicircular seat. The basement is devoted to heating and ventilating purposes. The material for exterior is Ohio sand stone, rock face. Tower, being the entrance, is cut stone, with perpendicular panellings, accentuating same. The roofs are copper and black slate. The wood work of interior is oak and Georgia pine.

A part of the building will contain three rooms which are especially designed for the use of the Biblical Department of the College for Women.

The need in the College for Women of yet further rooms for recitation and lecture purposes is urgent. It seems wise, therefore, to recommend that the room in Clark Hall now used as a library room should be turned into a recitation or lecture room, and also that the room at present used as a chapel should be turned into a library room. The Chapel may at a small expense be adapted to use as a library of great beauty and serviceableness.

Through the recent building of the Physical Laboratory and the Biological Laboratory the needs of the scientific departments have been largely filled. The departments of Chemistry and Geology, however, still lack proper accom-The head of the Department of Chemistry is doing no small share of his work of investigation,—a work which the Board of Trust has especially asked him to undertake,—in a basement room. This room is so damp and so cold that for several weeks of the past winter Professor Morley was obliged to suspend his work. The Department of Geology is also, in its great growth, lacking facilities. Ι therefore recommend that the Trustees take measures for building a laboratory to accommodate the departments of Chemistry and Geology at the earliest possible day. It is hoped that some one or ones may honor himself by offering fifty thousand dollars for this purpose. It may be added that the reputation and work of the head of the Department of Chemistry naturally gives great attractiveness to this opportunity of rendering a large service to mankind.

In 1901 seventy-five years will have elapsed since the foundation of the old college for men at Hudson. A com-

mittee of the Trustees, a committee of the Alumni, and a committee of the Faculty of Adelbert College, have been appointed to arrange for a proper observance of this anniversary. The committees are entering upon their work in wisdom and enthusiasm, and they hope to make a celebration which shall worthily commemorate the past and which shall prove to be an inspiration and an enrichment for the work of the future.

To the reports of the Deans and other officers of the several departments, which are herewith submitted, I beg to commend the attention of the members of the Boards.

Respectfully submitted,

CHARLES F. THWING,

President.

Cleveland, 12th June, 1900.

# Report of the Dean of Adelbert College.

The following table shows the courses as taken for the year 1899-1900:

## FIRST HALF YEAR.

		•					
Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh- meu.	Specia1	Total.
Bible	I—Life of Christ		• •		58	3	61
Biology	II—Zoölogy	I	4			I	6
"	III—Zoölogy	3	2				5
Chemistry	I—Elementary	• •	I	31	6	3	41
"	II—Inorganic				20		20
" .	III—Organic	• •		14		I	15
**	IV—Metals	I	8				9
**	VI—Organic	5	4				9
"	VII—Quantitative	2					2
"	VIIIPhysiological	2	2			I	5
Economics .	I – Elements	I	22	1		1	25
"	III-Econ. History	6	I			2	9
"	IV—The State	5	1			I	7
English	I-Rhetoric			2	59	2	63
"	II—Theme Writing		3	50		4	57
"	III-Eng. Language		I	19		3	23
English	IV—Daily Themes	9	15				24
"	V-Daily Themes	6					6
	X-English Poets	7	6	I		1	15
	XII-Shakespeare	12		2			14
"	XIV—Browning	4	5	I		1	11
	XVIII—Milton	7	3				10
French	I—Elementary	3	14	18	12	2	49
"	V-Romantic School	6	14	12		I	33
Geology	I-Mineralogy	2	I				3
"	III—Structural	3	4			1	8
		-					

## WESTERN RESERVE UNIVERSITY.

Cour <b>ses</b> .	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.
German	I—Elementary	• •	• •	• •	37	I	38
"	II – Masterpieces	••			7		7
"	III—Second Year		I	31	12	2	46
"	IV—Author Course		5	10	2		17
"	V—Literature		I	I			2
"	VII-Von Scheffel	I	7				8
Greek	I—Homer			I	22		23
"	III—Drama			17			17
"	V—Tragedy		4				4
History	I-Middle Ages	3	12	I	I	1	18
"	V-Eng. Const.	12	2			2	16
"	VI-Am. Colonies	5	2	I		2	10
"	VIII-U. S. Const.	16	19			2	37
Latin	I—Livy	3			58	2	63
"	III—Horace	I		31			32
"	V-Cicero's Letters		4				4
Mathematics	I -Trigonometry			3	59	1	63
44	IV—Algebra			42		1	43
**	V-Anal. Geom.	1					I
**	VIIICalculus		2			I	3
• "	X-Quarternions	. 2	I				3
Philosophy .	I-Psychology	7	37	2		2	48
" .	II—Anthropology	15	10				25
" .	V—Ethics	22	1			I	24
" .	VI-Hist. of Phil.	9					9
Physics	I - Mechanics			18		2	20
٠	III—Optics		2				2
**	V-Electricity	2	1				3
"	VII-Drawing		2	• .		••	2
	_						

## SECOND HALF YEAR.

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh. men.	Special	Total.
Astronomy .	I—Descriptive	4	4				8
Bible	II-St. Paul		1		52	2	55
Biology	I—Elementary		I	17		5	53
"	III—Zoölogy		1				1
"	VI—Histology	4	2			I	7
"	VII—Embryology	6	I	:.			7
Chemistry	II—Inorganic		I		19		20
"	III - Organic			14		1	15
"	V-Qualitative		4			I	5
"	VI-Organic	5	4				9
"	VII—Quantitative	2					2
Economics	VI—Finance	2	9			1	12
	IX-Social Theories	2	8				10
"	XI—Social Problems	7	I			2	10
English	I – Rhetoric			1	53	2	56
· · · · · · · · · · · · · · · · · · ·	II-Theme Writing		3	47		4	54
••	V-Daily Themes	4	7				11
	X—Poets	5	I	I			7.
**	XII-Shakespeare	6	14				20
"	XIV-Browning	4					4
"	XVII-Eng. Novel	5	5				10
"	XVIII—Milton	3	I			1	5
"	XXX-Elocution				13	I	14
	XXXI-Elocution		I	5			6
French	II-XIX Cent. Fiction	2	12	16	11	1	42
"	VI-XVIII Century	7	12	10		1	30
Geology	IV-Hist. Geol.	3	4			I	8
"	V-Physiography	13	2			I	16
German	I—Elementary		1		33	I	35
"	II — Masterpieces				8		8
**	III—Second Year			33	9	2	44
"	IV—Author Course		I	8	2		11
"	V—History			I			1
**	XI-Freytag	2	3			1	6
Greek	II—Attic Orators			1	22		23
"	IV—Plato			15			15
"	XI—Lyric Poets	• •	3		• • •	•••	3
•••••	111 27110 1000	• •	3	••	••	••	3

## WESTERN RESERVE UNIVERSITY.

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.
History	II-Modern Europe	I	11			1	13
"	VII-U. S. Const.	I	6	3	I	3	14
••]	X—Europe since 1815	12	20			2	34
"	X-Am. Politics	5					5
Latin	IIPlautus	3			53	2	58
"	IV—Tacitus			28			28
"	VI—Lucretius		4				4
Mathematics	{ II, III—Anal. Geom. & Mechan. }		••	2	53	I	56
44	VI-Spher. Trig.		2	28		I	31
16	VII—Calculus			14			14
"	IX-Equations	I	5			1	7
Philosophy .	III—Logic	4	36				40
" .	IV-Introduction	2	15	I		1	19
"	VII (a)—Religion	8	1			1	10
" .	VII (b)—Sociology	16					16
" .	VIII (a)—H. Spencer	9				1	10
" .	VIII(c)-Contemporary	21	5			1	27
Physics	II—Electricity	1	I	16		2	20
<b>"</b>	VI-Magnetism	2	I				. 3
"	VIII—Drawing	• .	2				2

Respectfully submitted,

A. L. FULLER,

Dean of Adelbert College.

## Report of the Secretary of the Faculty of Adelbert College.

Five meetings have been held by the Permanent Faculty during the year ending with June 1st. The only business transacted by this body has related to appointments on the staff of instruction, and its recommendations have already been transmitted to the Board through the President.

The General Faculty, during the same period, has held ten meetings. Of the various measures passed your attention may be called to a few of the more important. It has been decided to observe the second Sunday in February as the Day of Prayer for Colleges instead of the last Thursday in January. The group system of studies, as it now stands in the catalogue, has been abandoned, and a committee appointed to devise and recommend a new scheme.

Through the Executive Committee plans have been formed for the inspection of high schools with a view to accrediting the work done in them for admission to the college. Finally, in view of the approaching seventy-fifth anniversary of the foundation of the college, a committee consisting of Professor Charles J. Smith, Professor Edward W. Morley and Dr. C. P. Bill, has been appointed to confer with a similar committee from the Board, and also a committee of the Alumni Association, as to a proper celebration.

Respectfully submitted,

John William Perrin, Secretary.

## Report of the Registrar of the College for Women.

For the Year 1899-1900.

#### FIRST HALF-YEAR.

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total.
Art, Hist. of.	I—Ancient	16	4			1	21	21
Bible	I—Christ				48	3	51	
"	III—Christ	2	9	39		2	52	
"	IV—Acts	8	33	• •		1	42	145
Biology	II—Zoölogy	2					2	
"	IV—Mammals	4					4	6
Chemistry	I—Elementary	3	18	4		3	28	
	II—Inorganic		6	5		1	12	
	Special		I				I	41
Economics .	I—Elementary	3	7	I			11	
" .	VI—Sociology	I					1	12
English	I—Composition				48	4	52	
"	III—Daily Themes	I	19	17		3	40	
"	V—Themes	3					3	
"	VIII—Old English		I	I			2	
"	IX—Epic Poetry	2	• •				2	
	XIV-Shakespeare	12	5	2		1	20	• •
"	XVI—Classicism	2	3	24	4	I	34	
"	XVIII—Criticism	5	I				6	
	XX-Modern Poets	10	4			I	15	174
French	I—Elementary	• •	4	10	29	2	45	
"	III—Drama	2	3	19	I	2	27	
"	V—XVI Century	• •	5				5	
	VII—XVII Cent. Dr'a	2	1				3	
"	IX—XVIII Century	2					2	82
Geology	III—Structural	5	3			2	10	10

Courses.	Number.		Juniors	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total.
German	I—Elementary		2	9	13	I	25	
"	III—Masterpieces	2	6	13	8	2	31	
"	V—Author Course	4	8	2	II	1	26	• •
"	VIII—XIX Century	3		10	3	2	18	
"	X1V—Heine	8	4	I			13	
"	XVI—Composition	3					4	117
Greek	I—Homer				13		13	
"	III—Drama			9			9	
"	IX-Oratory	3	4				7	29
History	I—Middle Ages		2	24	20	2	48	
"I	V-Eng. Constitut'n			4			4	• •
"	XI—Modern Europe	13	20	I		I	35	87
Latin	I—Livy				50	I	51	
"	III—Horace		2	29			31	
"	V—Pliny	I	20			I	22	
"	IX—Catullus	IO				• .	10	114
Mathematics	I—Trigonometry			I	42	1	44	
44	V-Anal. Geom.	I	I	6			8	
"	VI—Calculus		2				2	
46	IX—Anal. Geom.	2					2	<b>5</b> 6
Music	I – History	5	4			1	10	10
Philosophy .	II—Psychology	I	21	3		I	26	
" .	XII—Psychology	2					2	28
Physics	I—Mechanics	I	2				3	3
Spanish	I—Elementary	••	I	• •	••	••	I	. 1

#### SECOND HALF-YEAR

Courses.	Number.		Juniors	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total.
Art, Hist. of.	II—Christian	13	9				22	22
Astronomy .	I – Descriptive	I	I	I			3	3
Bible	II—Christ				48	4	52	
"	V—Acts	8	33				41	
"	VI - N. T. Grammar			3			3	96
Biology	I—Elementary	2	21	3		I	27	
"	VII—Embryology	5					5	32
Chemistry	IV—Metals			4		I	5	
"	V—Physiological	I	6			I	8	13
Economics	III—Social Theories	3	11	2		I	17	
"	V—Government	4	I				5	22
Education & Teaching	Lectures	4	9				13	13
English	II—Composition				36	4	40	
**	IV—Daily Themes		8	I		I	10	
"	VI—Themes	2					2	
"	X-Middle English		I	1			2	
"2	KI-Religious Poetry	I				·	I	
	XII—Chaucer	1	4	I	9	1	16	
**	XV-Epic Poetry	12	I				13	
"	XVII—XVIII Century Romance	ı	6	25	1	5	44	
	XVIII—Criticism	3					3	131
French	II—Elementary	I	2	6	30	2	41	
"	IV—Drama	I		10	I	1	13	
46	VI-XVI Century	2	2	2			6	
۰۰۲ ،	/II-XVII Cent. Dr'a		4				4	64
Geology	IV—Historical	3	2			I	6	
	V-Physiography	2	4	7		I	14	20
German	II-Elementary		3	8	12	I	24	
"	IV-Masterpieces	2	5	11	7	I	26	
	VI-Author Course	4	7	I	12		24	
"	VIII-XIX Century	3		IO	I	1	15	
"	XVII—Contemporary	3					3	
"	XVIIIMyths	8	4	2	1	I	16	108
Greek	II—Attic Orators				13		13	
"	IV—Plato			7	•		7	
"	X—History	2	4	••			6	26

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total,
History	II—Europe		. 3	20	IO	2	35	
"	V—France	2	4				6	
"	VI-Stuart Régime			2			2	
"	XII—Am. Colonies	8	24			I	33	
"	XIV—Bibliography	I	I	3	2	I	8	84
Latin	II—Plautus				48	3	51	• •
46	IX—Catullus		I	26			27	
"	XI—Juvenal	I	16				17	
"	KV—Teachers' Course	11					II	106
Mathematics	II—Algebra	1	<i>:</i> .	3	41	I	46	
**	IV-Mechanics	4	2	37			43	
**	VI—Calculus		3	2			5	
44	XIV—Numbers	I	2				3	97
Music	II—History	4	2			1	7	7
Philosophy.	I—Logic	I	2	41		. 1	45	
"	III—Ethics	6					6	
7.	-Hist. of Philosop'y	4	2	I			7	58
Physics	II—Light	I				I	2	2

In addition to the above statistics I desire to call attention to the following matters.

An attempt has been made during the year to increase the efficiency of the work in the various courses by limiting strictly the number of discontinuous absences from recitations. This has been done by providing that students whose absences from any course amount in one month to a certain percentage of the recitations of the course shall be dropped from it. Although the evil had not grown to threatening dimensions, this measure has already largely eliminated it.

The principles which govern the college in receiving students on certificate have been better defined, and the amount of any requirement which an applicant may be allowed to complete, as a "condition," after entrance to college, has been severely limited.

There are two needs of the college to which my duties

as registrar have constantly called my attention. First, the need of more recitation room space. Several of the rooms are now unduly crowded by classes which it is unadvisable further to subdivide. Such crowding partially defeats the purpose of meeting, for the air becomes exhausted so quickly that the brains of the students are brought into a condition unfavorable to the best intellectual effort. Such waste constitutes a serious loss. It will be guarded against somewhat by the provision in the new chapel of a room where the recitations in Bible, and perhaps others, may be held, and further, by the proposed moving of the library into the present assembly room of Clark Hall, vacating a large room for recitation purposes. The only complete remedy will be found by throwing certain of the smaller rooms together, when the erection of another building, containing recitation room, shall permit a decrease in the number of such rooms in Clark Hall.

The second need is for arrangements to render more productive the hours of study of those who reside in the city. and who must remain in Clark Hall until each day's recitations are at an end. At present such students use principally the rooms in the basement. Even if these rooms are, from a sanitary point of view, unobjectionable, they are so small that they do not afford the needed space. Moreover they are lighted by windows with a glass area of not over 32 by 38 inches. Certain rooms have two of these windows, others have four. These rooms hardly lend themselves to quiet study. Some relief has been found by placing two large tables in the assembly room. conditions still remain unfavorable to the most effective use of time, seriously embarrassing many of the students in their effort to form scholarly habits of work. The rooms in the basement are much used for social purposes, and yet even for these they are utterly inadequate. I beg leave to suggest that a satisfactory solution of the double problem

would be found in a "students' house," containing study rooms each capable of accommodating two or three students, and other rooms devoted to quiet study and large enough to accommodate a considerable number of students at a time. The smaller study rooms, as well as desks in the larger rooms, might be rented, if deemed advisable. There might be still other rooms for social purposes, a hall where more formal lunches might be served, and a well appointed kitchen facilitating proper preparation. This solution of the problem is not, however, so important as the clear recognition of the serious waste of time which is now compromising the efficiency of much of the work done in the college building.

Respectfully submitted,

HENRY E. BOURNE,

Registrar.

### Report of the Dean of the Graduate School.

During the current year eighteen students, representing five different institutions and including ten men and eight women, have been enrolled in the Graduate School. Of this number three are finishing their third and four their second year of graduate study, while eleven began their work as new students last September. The number of instructors offering courses has been thirty-one, the number of courses offered one hundred and twenty-five. Five are candidates for the Master's degree at the coming Commencement.

In the different departments instruction has been given as follows: In Biology to three students, in Economics to two, in English to eight, in German to three, in History to three, in Italian to one, in Latin to one, in Mathematics to one, in Physics to one, in Philosophy to four, in Romance Philology to one, in Sanskrit to one, in Spanish to one.

The Graduate Club has continued its meetings, and was represented again as usual by its delegate at the meeting of the Federation of Graduate Clubs held at Columbia University during the Christmas holidays.

There is pressing need of a few fellowships or scholarships for able but needy students. As a beginning in this direction, I would suggest ten such scholarships, yielding \$100 a year. Even so small an amount would be of great help, for it would soon be evident that, by thus helping graduate students, we would be rendering most important service to the whole University.

Respectfully submitted,

R. W. DEERING,

Dean.

### Report of the Dean of the Medical School.

The register shows an enrollment of 137 students. This number has been diminished by nine during the session.

Last session our matriculants numbered 108, showing a gain of 29.

The students are divided as follows: Freshmen, 42; Sophomore, 37; Juniors, 25; Seniors, 33. Considering our rigid requirements for entrance the enrollment of this session has exceeded anticipation. I would again make an urgent appeal for the establishment of scholarships to aid worthy young men to take advantage of the rare facilities we have to offer students of medicine.

The total receipts from students amounts to \$15,000, inclusive of fees due amounting to \$1,000. These will be collected before the end of the session. The total running expenses for the year will be approximately \$25,000. It will be noted that the income for the year including \$9,700 from the Wood's Fund is not sufficient to meet expenses. The gift of \$2,000 from certain members of the Board of Trustees will meet the deficit.

The budget for next year approximately stated, foots up \$25,000. This is not inclusive of the salary which may be determined upon for the executive officer and clerk to be appointed. I am informed by the treasurer of the University that we will have sufficient to our credit including \$2,900 from the Wood's Fund due July 1st, prox. to carry us through the summer.

For a detailed statement of our finances I must refer you to the report of the treasurer of the University.

Regarding the work done during the session just closed a few statements should be made. For the first time we

have had four classes in the school. We made effort to provide four distinct schedules. Taken all in all the effort has been but fairly satisfactory. This, however, was expected. The experience of this session has convinced us of the necessity of adding to our teaching corps two or three more competent lecturers in order that satisfactory instruction may be given. A communication bearing upon this subject will soon be presented to you by the Faculty. The additional clinical facilities afforded our Senior Class, through bedside instruction in the several hospitals to which we have access, have been greatly appreciated by the class and by the Faculty.

Respectfully submitted,

HUNTER H. POWELL.

Dean.

## Report of the Dean of the Franklin T. Backus. Law School.

The school year which is now coming to a close has. been a year of healthy growth and development for the law school. The new rule requiring candidates for the degree of LL. B. to be qualified to enter the Freshman class of Adelbert College has been enforced for the first time. immediate consequence of this has been on the one hand to keep away from our school a number of men who would otherwise have entered, while on the other hand the average ability of our first year class has been much better than that of previous years and a much larger percentage of the men entering in September have remained in the school during the entire year. But although there has been this. decrease in the numbers of our entering class, the number of upper classmen returning to school was so large as tomake our total enrollment this year the same as that of last year, i. e., one hundred and three. We feel assured that the adoption of this rule has been a decided advantage educationally, although it has proven for the present to be a disadvantage financially. As our school is now entirely dependent upon tuition fees for its income, the turning away of any number of men means a serious inroad upon our income, and we are more than ever impressed with the thought that to conduct a law school upon a plane worthy of a great university, income other than that from tuition fees. is absolutely necessary.

In a letter recently received, Dean James Barr Ames of the Harvard Law School, in speaking of our school says: "It was one of the earliest three year schools, pursued right methods and was ambitious in its standards. With a properendowment it should easily become one of the best schools in the West. The people of Philadelphia have recently raised \$375,000 for the new law building of the University of Pennsylvania. Cleveland ought to give a similar amount to your school, not for a building, but for books and the endowment of professorships. Good law schools mean an enlightened bar which is one of the main bulwarks of free government. I believe there is no more far-reaching, beneficial charity than the extension and improvement of legal education In a city so full of civic pride and public spirit as Cleveland, I cannot doubt that the merits and power of your school will long remain unrecognized by those able to equip it handsomely."

Since our last Commencement a rare opportunity was offered us to purchase, at about one-half the usual cost, a large library containing the reports of the courts of last resort of every state and territory in our country. As the money was not in hand to make the purchase some of the members of the Faculty took it upon themselves to borrow the money necessary by giving their personal notes, hoping that ultimately the necessary funds would be secured by the contributions of generous friends. The acquisition of this large library has given us one of the best law school libraries in the country. Harvard, Pennsylvania, Columbia, Cornell and Michigan only have better law libraries. facilities offered to our students have therefore greatly improved during the year, and of the seventy-eight law schools in our country only those above named can be said to offer better facilities. We therefore hope and expect in the coming years to secure a large proportion of the college graduates entering the legal profession in this and adjoining states.

EVAN H. HOPKINS.

Dean.

### Report of the Dean of the College of Dentistry.

The Dental Department still occupies the fifth and sixth floor of the Bangor Building. The equipment is very good, but could be improved if more money were available, or if we had a building built especially for dental work. The lease expires in August, 1901, and if our trustees would erect a building for us we could just as well pay them \$2,100 yearly rental as to pay it to outside parties. Since 1892 we have received no donations but we have taken fairly good care of ourselves. It looks rather bright for the future, as forty-five students have registered for the coming session. In 1892 we had 20 students, and at the opening of this session we had 94, viz: Seniors, 31; Juniors, 29; Freshmen, 34, but one Freshman and two Juniors were transferred to the Medical Department.

Our graduates number 149, including the present class, and they help increase our strength. We believe this is a good showing, as there are dental colleges near by, viz: Columbus, Cincinnati, Indianapolis, Detroit, Ann Arbor and Buffalo.

In 1892 we had 8 teachers; we now have 18, who, in their work, have done thorough teaching, covering a larger number of subjects than ever before, and we thank them heartily for their "good works."

Changes in the Faculty, viz: Professor C. A. Hamann lecturer and demonstrator on Oral Surgery; Drs. D. H. Ziegler and D. A. Wright demonstrators of Operative Dentistry; Dr. V. E. Barnes, demonstrator of Prosthesis and Orthodontia. It was thought wise, after the middle of the term, to open the Operatory in the forenoon, as well as afternoon, although this necessitates paying our secretary

an increased salary, and also paying an extra demonstrator. At the close of the session it can be decided whether or not to continue this arrangement.

A few students enter each year and pay \$250 for the course of three years, thus saving themselves \$50. At present we have nine such students, and as a rule they do well because, having invested their money, they settle down to work and try to obtain the worth of it, taking it for granted that they are sure to remain with us, and they are also apt to comport themselves well.

The following table shows the work required in each year and the number of hours a week in each subject.

#### FIRST YEAR.

Osteology . . . . . . . . . . . . . . . . 2.

HOURS PER WEEK.

Chemistry	lectures. laboratory.
Prosthesis	lecture. laboratory.
Histology 4—	16 weeks.
Dental Anatomy I.	
SECOND YEAR.	
Anatomy—Descriptive 4.	
Anatomy—Regional	
Physiology { 2—	lectures or demon- strations.
Dental Histology and Embryology 1-	
Metallurgy 1—	5 months.
Operative Technics6—	before Christmas.
Crown and Bridge 1—	4 months.
Prosthesis Crown and Bridge Work and	
Orthodontia Technics	
Clinical Dentistry 20—	4 months.
Dissection	nings.
Dental Pathology (progress)	

#### THIRD YEAR.

Operative Dentistry $\ldots $	2—4 II	onths.
Operative Clinics	•	
Pathology, Completed		•
Materia Medica and Therapeutics	I.	
Bacteriology		eeks.
Oral Surgery	ī.	
Orthodontia	Special	lectures.
Anaesthetics	44	44
Jurisprudence	"	• •
Dental Hygiene	. "	66
Electro-Therapeutics		44

Our students, as formerly, attend the courses in the Medical School, in Anatomy, Physiology, Histology, Chemistry and Bacteriology.

The number of operations made in the Operatory and Prosthetic clinic have been increased somewhat over last year. These operations are largely these: treating aching and diseased teeth, and diseases of the oral cavity; surgical operations, neuralgia, filling and extracting teeth, making crowns, bridges, partial and full dentures, obturators, etc.

All of our graduates belong to the Alumni Association, and the meeting this year will be of unusual interest, as two of their number will deliver addresses, and others will give clinics.

The Wilsonian Dental Society is composed of students, who meet every two weeks during the session. It is productive of much good. At different times in each and every term members of the Faculty are invited by the president of the society to deliver lectures.

If we had some microscopes and a few hundred dollars, we could equip a bacteriological laboratory in our own building, where the opportunities for doing dental bacteriological work are better than they can be anywhere else, simply because we can obtain material from our clinics

any day, and the nearer the material is to the laboratory so much the better. Good equipment in all laboratories is soon noised abroad, and thus brings us fame and students.

To our Museum during the past years a few books and specimens have been donated by dentists, but we need more of each, and would thank any of our friends for books on dentistry and medicine and their collateral branches, or for those on science, mechanics, etc.

We are trying to keep pace with advanced methods, and hope for even better results in the future.

Respectfully submitted,

HENRY L. AMBLER,

Dean.

## Report of the Secretary of the Faculty of the College of Dentistry.

Though one hundred and fifteen students registered at the beginning of the session only ninty-one were in regular attendance during the term.

The decrease in number since last year may be because several of our students changed from the dental to the medical course, also because we are surrounded by ten colleges which give shorter courses that attract students of limited resources. Insufficient advertising is said to be another cause. Advertising is a serious problem and it is more so when the amount of money to be used is scarce. Our best advertisers are our own graduates who influence their friends who are contemplating the study of dentistry.

Dental science has made very rapid strides during the past decade, and our school has received very flattering recognition both at home and abroad. While we are proud of this reputation we must continually improve to maintain it. We have the desire, the energy, and we hope the ability to keep the school in the best condition, but we are handicapped entirely because of lack of funds. Everything that is good must be paid for and at times we have been quite discouraged because of insufficient means to carry out ideas that would keep us to the front. This department seems entirely dependent upon its own resources, but with expenses for repairs and improvements due to the ravages of time and wear, it is a question as to how long the condition of prosperity will exist.

We note with pride that 7,500 operations were recorded in the clinics. Some were not recorded.

The entire course of study is eminently practical and it gives our students more hours for actual clinical experience than is possible in the majority of dental colleges. Our clinical advantages are exceptionally fine.

The students and faculty deplore the fact that our isolation from the center of university interests makes it impossible for them to enjoy the social and athletic functions that are accessible to students of other departments. We feel the need of a greater University spirit,

The present aspect for an increased number of students next year is encouraging.

Respectfully submitted,

W. H. WHITSLAR,

Secretary.

## Report of the Librarian.

As acting librarian of Adelbert College of Western Reserve University I have the honor of submitting the following report for the year 1899-1900:

In the last annual report of the president of the University this sentence occurs, "but the greatest need in every department is that of books." The gift of \$12,000 made in December, 1899, by Mr. and Mrs. Samuel Mather will dovery much toward supplying this need; it was not intended to be used in expanding along any new lines but in building up and strengthening in every department.

We take pleasure in acknowledging other gifts to the library as follows: Mr. Samuel Mather, \$1,000; Mrs. Samuel Mather, \$800; Mr. E. P. Williams, \$250; Mr. Wm. H. Baldwin, \$100; Mr. J. G. White, \$20; and Mr. H. R. Hatch, \$1,000, for the Department of Philosophy. The undesignated gifts were apportioned as follows:

Library Committee Fund	1,600
Binding	150
Biology	765
Chemistry	425
Economics	1,200
English	2,315
Geology-Physiography	915
German	950
Greek	720
Latin	743
Classical Periodicals	85
History	1,425
Mathematics	670
Philosophy	577
Physics-Astronomy	905
Romance Languages	725.

Dr. Haydn's generosity is again manifested by a gift of forty-eight volumes; some of these being bound volumes of periodicals which could be put to immediate use in the reference room. The most notable gift of books is that of Mr. C. B. Lockwood, "The Dial," Boston, 1841-1844, valuable alike from a literary and a philosophical point of view. The following is the list of those who have presented books to the library since the last report:

			=		
	Bound.	Unbound and Pamphlets		Bound.	Unbound and Pamphlets
Edwin F. Adams	I		Dartmouth College	1	
Amherst College Li-			Deutsche Evan. Synod		
brary		I	of North America		I
American Humane As-			O. F. Emerson	I	
sociation		2	H. N. Fowler		32
American Union			A. L. Fuller	2	•
League Society	I		Gehe-Stiftung, Dres-		
W. H. Anderson		I	den	1	
C. W. Bardeen	I		K. S. Guthrie		I
J. E. Blackburn	I		H. A. Haring		I
Boston Public Library		2	Chas. Harris	6	2
Bowdoin College		3	Hon. C. H. Harrison.	I	
University of Califor-			Josiah Hartzell		I
nia	I		Hon. John Hay	I	
Carnegie Free Library		I	Rev. H. C. Haydn	45	3
W. H. Cathcart	I		F. H. Herrick	13	16
C. A. Catlin	I		W. R. Hill		I
Rev. A. B. Christy	4		Hi-O-Hi Board, Class		
Cleveland Board Park			of 1900	1	
Commissioners	I		Indiana State Board of		
Cleveland Municipal			Charities		1
Association		I	Ipswich, Mass., His-		
Cleveland Public Li-			torical Society	I	
brary		I	Johns Hopkins Uni-		
V. W. Clisby		2	versity Library		I
Colby College	I		W. S. Judson	I	
College for Women,			Hon. Charles Kinney		I
Annual Board,			Lafayette Post, G.A.R	I	
Class of 1900	I		C. B. Lockwood	4	
Columbia University			Longmans, Green & Co	I	
Library		I	Le Duc de Loubat	2	2
Dr. Mary N. Colvin		<b>4</b> 3	W. T. Marvin	I	
Connecticutt State			Mass. Bureau of Labor	_	
Board of Charities	I		Statistics	18	9
Dayton, O., Library			Mass. State Board of		
Board		I	Charities	I	

	Bound.	Unbound and Pamphlets		Bound.	Unbound and Pamphlets
Merck & Co		I	Alfred T. Perry		1
E. Grace Mills		3	Ponasang Missionary		_
Regents University of			Hospital		I
Minnesota and			L. S. Potwin	2	3
Conway Macmil-			Providence Public Li-		•
lan	I		brary		1
State Geologist of Mis-			E. K. Putnam	I	
souri		I	E. O. Randall	I	
Dr. Thos. K. Monro	I		Red Cross Relief Com-		
Mr. F. H. Morris	2	3	mission of America		I
New Jersey State Geol-			S. L. Reeves		I
ogist	1		R. Scuola Sup d'Ag-		
Territory New Mexico		I	ricul. in Portici	I	
NewYork Central R. R		3	J. F. Rhodes	I	
New York Civil Ser-			Chas. Scribner's Sons		1
vice Reform Com-			B. C. Shephard		13
mission		I	A. K. Smiley		I
New York State Board	_	_	Smithsonian Institu-		_
of Charities	2	I	tion		I
New York State Com-		_	State Charities Loan		_
mission on Canals		I	Association		I
New York State, Dept. Public Instruction			G. E Stechert		2
	1		J. W. Stimpson Morrison I. Swift		I
New York State, Uni-	8		Pres't C. F. Thwing.	I	~ .
versity of	I		O. F. Tower	•	74 18
Ohio Evang. Lutheran	•			27	69
Synod		I	University Club, New	٠,	9
Supt. Immigration,		•	York	I	
Ottawa, Canada.		I	Hon. J. H. Walker	ī	
Library P. M. Ozanne	3	•	F. M. Warren	_	6
University of Padua	9	I	*** ** ** ** 11 41	15	2
Trustees Peabody Edu-		_	O TI III -	9	7
cational Fund	1		C. R. Williams	í	•
Pennsylvania Board			R. W. Wilson		I
Public Charities	I		N. H. Winchell	4	
Pennsylvania Prison			Rev. G. V. Zottarelli .	i	
Association		I	·	_	
University of Pennsyl-			21	8	<b>365</b>
yania	1				



#### The accessions for the year are as follows:

	Bound Volumes.	Unbound or Pamphlets.
By exchange	9	-
By gift	218	<b>3</b> 65
By purchase	1522	458
Total	1749	823

#### The binding record shows the following:

5 volumes bound	1.55
<u>-</u>	134.10

In the periodical list several changes have been made. The Outlook and Expository Times have been discontinued. To the general list have been added: The Chautauquan, The Library, Public Libraries, Publishers' Circular, Science. In the departments a few changes have been made. In the German Department, Archiv für das Studium der Neueren Sprachen and Neueren Sprachen have been restored after a lapse of one year. To the Department of Physics, Popular Astronomy has been added; and Revue d'histoire littéraire to that of Romance Languages. To the Department of Economics, Municipal Affairs has been added, and Political Science Quarterly restored. A subscription is entered for Bonner Beiträge zur Anglistik by the English Department, and for American Journal of Physiology and The Auk by the Department of Biology.

Complete files of Bulletin of the Nuttall Ornithological Club, The Auk and Magazine of American History have been purchased. Other files completed, are Archiv für Anthropologie, Johns Hopkins University Studies in Historical and Political Science, Columbia University Studies in History, Economics and Public Law, Modern Language Notes, Popular Astronomy, Municipal Affairs. Monthly Review and Littell's Living Age are practically complete.

Full sets of Economic Review, Mineralogische und Petrographische Mittheilungen and Zeitschrift für Krystallographie und Mineralogie will be ordered very soon.

We wish to acknowledge the receipt of Bibliotheca Sacra from President Thwing, and The Catholic University Bulletin from Prof. H. N. Fowler. The following periodicals and newspapers were kindly donated by their publishers: Advocate of Peace, American Economist, Book Reviews, Congregationalist, Criterion, Education, Hartford Seminary Record, Hochschul Nachrichten, Literary News, Missionary Herald, Ohio Archaeological and Historical Quarterly. We are under obligation to Mr. F. H. Morris for some valuable government publications.

Respectfully submitted,

CAROLINE E. WATERS,

Acting Librarian,

### Report of the Physical Director of Adelbert College.

The general plan of gymnasium work which was pursued by my predecessor, Dr. Lang, was adopted this year. However there have been a few innovations of minor importance. Among these was the printing of a small pamphlet of exercises for the development of different groups of muscles. This facilitated the prescribing of individual work to those who were in need of special exercise. The anthropometric system of Dr. Seaver of Yale was used this year. Two seniors, Mr. Hawthorne and Mr. Mook, who were employed to assist in recording the measurements, gave their services as leaders. This made it possible to divide a class into three squads for heavy apparatus work. A few weeks after the classes were organized, the division into squads was made according to the ability of the men. At the beginning the first and second squads were smaller than the third from which the men who made the most rapid improvement were afterwards advanced. The senior leaders proved very faithful and efficient and helped very much toward making the heavy apparatus work systematic and interesting.

It was necessary on account of the floor space to divide the freshman class into two classes for gymnasium work, each of which came to the gymnasium three times a week. In one of these three class hours free gymnastics according to the Swedish system were taught.

The players for a college basket-ball team were selected after a series of class games. A special hour each week was set aside as a time in which to coach this team. This arrangement had to be given up when the heating apparatus at the gymnasium gave out and made it necessary to carry on the gymnasium work in the large

room on the second floor of Eldred Hall. Nevertheless the Adelbert team combined with that of the Medical College and practiced at the gymnasium used by the latter. The Reserve team, as it was then called, had very fair success and won five of its seven games.

Gymnasium classes for the upper-class men were started and about forty men were enrolled. Indoor work for the track team was also begun. But these two projects were necessarily given up when the gymnasium was abandoned on account of the failure of the heating apparatus. Nevertheless the beginnings were such as to give assurance that if these classes for upper-class men are organized another year, they will not want for members.

At the close of the required class work for the freshmen a practical examination in gymnasium work was held for those whose attendance had been the best, in order to grade them in gymnastic ability. The results of this examination together with the attendance and development were considered in awarding the President's gymnasium prize.

After the Easter vacation the gymnasium director became the track team coach. Unusual interest was taken in track athletics this year.

In many of our colleges and universities the physical director has salaried assistants who have more or less complete charge of the floor work. At present such an arrangement in this university would hardly be desirable and not possible, financially. The following plan seems to me better adapted to our needs and conditions. There should be a normal class consisting of from sixteen to twenty men from the upper classes. These men would be selected by the physical director both for their gymnastic ability and because they would make desirable and interested leaders. They should be taught not only the things they would need to assist in the class work, but also be directed along such other lines as would be of special interest to them. This

arrangement would enable the physical director, while maintaining general supervision over the heavy apparatus work, to leave it mainly in the care of these men and so devote more time to those students who especially need corrective gymnastics. More students would be directly or indirectly interested in the gymnasium by this arrangement. A larger use of the gymnasium would make the need of a better equipment in this department more urgent and, therefore, the sooner realized in such a way as not only to provide for the immediate future, but for many years to come. This arrangement would also prepare some of our college men to take charge, in connection with their college work, of the small gymnasiums in the city whenever the opportunity occurred.

The attendance by the men who are required to take gymnastic work, although not unusually poor, was such as to suggest the need of other stimuli than are already offered for good work in this department. A few ambitious men work for the prize. The more conscientious men strive to avoid getting marks. The majority become interested in the work and attend well. But there are some men who This class includes those come reluctantly from the first. men who are more studious than wise and those who feel that time spent at the gymnasium is time lost from their studies. It also includes some of those who are paying the whole or a part of their expenses by doing outside work, and who seem to think that it would be far better to use the time and energy spent at the gymnasium in some work for which they would be paid. Then there are the few who are lazy in this as in all the rest of their work. Unfortunately this class of men is composed of those who most need physical develop-I received more petitions for excuses from gymnastic work the week before and week after class work began than all the rest of the year. Hence lack of interest in the work can not be the only cause of this reluctance on the part of some. It seems to me the opinion is very general that the gymnastic work is simply for the exercise derived from it, the educational value being entirely lost sight of, although it is by far the more important. I believe that the best way to remedy this mistake is to place the required course in gymnastics on the same basis as the other college work and to grade the men on their gymnastic work as well as their Latin, Greek and Mathematics. This appears to me to be the only way to give to the gymnastic work the dignity and importance that it should have in the minds of the students. If those who would have the matter in charge should place the required course in gymnastics on the same standing as other college courses it would be my purpose to make it worthy of that standing.

The need of a larger and better equipped gymnasium is very evident. In order that no mistake may be made in the future, when there is an opportunity to supply this need, it shall be the purpose of this department another year to note carefully in what respects the present gymnasium is inadequate.

Respectfully submitted,

CHARLES J. WEHR,

Physical Director.

## Report of the Instructor in Gymnastics, College for Women.

Gymnasium work is required three hours per week of the Freshmen and Sophomores.

In October the Freshmen were examined by the physician, and records made of family history, condition of heart, lungs, spine, eyes and ears. Fifty measurements were also taken by the instructor to ascertain the needs of each student. Special work or prescription cards are made for each individual, which give exercise that will best promote health and symmetrical development. Of the fifty examined, forty-three have taken the work, five were excused and two have left college. The regular instruction began with eight weeks' out-of door work, consisting of basket ball, golf, swing bowling, quoits, etc. New out door games are added from year to year. The indoor work has followed in much the same lines as last year, consisting of individual and class work, free exercises, marching, light work, simple heavy work and games.

To our already well equipped gymnasium we have added twenty much needed combination lockers and a punching bag. More and better arranged dressing and bath rooms are the great need of this department.

Respectfully submitted,

ELLA J. MORSE,

Instructor.

### Report of the Principals of Western Reserve Academy

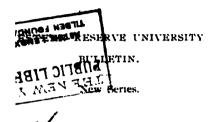
The prediction made in our last annual report that the coming year would be a most prosperous one has been fully realized. The scholarship has been up to the standard. The enrollment has been greater than at any time in the history of the school: an increase in attendance of about twenty-five over last year, and 33% higher than the average during the last eighteen years.

The graduating class this year numbers 14. Of these, at least eight will enter college the coming fall; two will probably return to the Academy for further study. The remaining four have not yet decided definitely their immediate future, though all plan eventually to enter college. The presence in the school of so many who are earnestly fitting themselves for college is very helpful in maintaining a genuine scholarly atmosphere.

In this connection it may be interesting to note that since 1882, 272 students have graduated from Western Reserve Academy. Of the 272 graduated, 182 or about 66% have entered higher institutions of learning. Of these 85 have gone to Adelbert, 10 to University of Michigan, eight each to Cleveland College for Women and Lake Erie College, 7 each to Harvard University and Oberlin, 6 each to Amherst and Case School of Applied Science, 4 each to Yale and Princeton, 3 each to Johns Hopkins, Cornell, Smith, Ohio State and Kenyon, 2 to Leland Stanford, 1 each to Williams, Chicago, Purdue, Fisk, Middlebury, University of Illinois, University of Pennsylvania, and Annapolis Naval Academy.

The endowment work has progressed as rapidly as could possibly be expected. Over \$63,000 has been pledged on condition of raising \$100,000.

The enrollment for the present year is Boys, 77; Girls, 33; a total of 110.



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# Western Reserve University

## REPORTS OF THE PRESIDENT AND FACULTIES.

1900-1901.



CLEVELAND, OHIO.

Issued Bi-Monthly by WESTERN RESERVE UNIVERSITY, 2430 Euclid Ave.

[Entered at the Post-Office at Cleveland, Ohio, as second-class matter.]

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## Western Reserve University.

## **REPORTS**

OF THE

President and Faculties.



1900 - 1901

CLEVELAND. Press of Winn & Judson, 1901.

## TABLE OF CONTENTS.

Report of the President,	3
Report of the Dean of Adelbert College,	150
Report of the Secretary of the Faculty of Adelbert	
College,	154
Report of the Registrar of the College for Women,	156
Report of the Dean of the Graduate School,	161
Report of the Dean of the Medical College,	163
Report of the Dean of the Franklin T. Backus Law	
School	167
Report of the Dean of the College of Dentistry, .	169
Report of the Secretary of the College of Dentistry,	172
Report of the University Librarian,	174



17490

## ANNUAL REPORTS WESTERN RESERVE UNIVERSITY.

ADELBERT COLLEGE, COLLEGE FOR WOMEN, GRADUATE SCHOOL, MEDICAL COLLEGE, LAW SCHOOL, DENTAL SCHOOL.

ACADEMIC YEAR OF 1900-1901.

To the Honorable Boards of Trustees:

As President I beg to submit a report for the academic year of 1900-1901. This year is also the close of a period of seventy-five years since the foundation of the oldest college of the University. The report therefore considers the work and the life of the College and University in a way somewhat more general than has usually obtained.

It becomes my sad duty to record the death of the Secretary and Treasurer of the College and University, Ebenezer Bushnell. It is nearly sixty years since Dr. Bushnell came into association with the college. entered the Freshman class in 1842, graduating four years later, was a member of the School of Theology which then existed, served as tutor, became a Trustee in 1861 and was chosen Treasurer and Secretary in 1882. The service of Dr. Bushnell therefore covered not only a long period, but also crises in the history of the College and University. To the performance of his duty, he brought intelligence, a keen sense of justice, faithfulness, love for his work and for men and for God. He was beloved and respected by all who came to know him in the intimate relations of the college. He served the College and University so long as his strength was continued to him, and he died, as has been his wish he might die, holding the official relations which he had held for almost a score of years.

With the close of the present academic year, Professor Frederick Morris Warren terminates his relations as professor of the Romance Languages. Professor Warren was instructor in Modern Languages for two years, 1881-83. After pursuing studies abroad and after service in the Johns Hopkins University, in 1891 he returned to the college as professor. The decade of service has seen the number of students in the Romance Languages increase in both undergraduate colleges about four fold. In this time, too. Professor Warren has extended the renown of the college through work which the college desired to be done, in the preparation of no less than eight volumes. Warren has accepted a call to Yale University. He constitutes the sixth member of the Faculty of Yale who have either taught in Western Reserve or are its graduates. The other members are, Thomas Day Seymour, George Trumbull Ladd, Arthur H. Palmer, Bernadotte Perrin and Edward G. Bourne. This old college was in the earlier time known as the Yale of the west. The college in New Haven might quite as fittingly be called the Western Reserve of the east.

The attendance in Western Reserve or Adelbert college since its beginning is as follows:

NUMBER OF STUDENTS IN COLLEGE EACH YEAR, 1830-1900.

Үеаг.	Reg. Spec.	Year.	Reg. Spec.	Year. R. & S.
1830-31	25 5	1854-55	29	1878-79 59
1831-32	36	1855-56	27 5	1879-80 66
1832-33	54	1856-57	37 8	1880–81 64
1833-34	45	1857-58	46	1881-82 75
1834-35	34	1858-59	48	1882-83 75
1835-36	41	1859-60	48	1883–84 83
1836-37	51	1860-61	62	1884-85 89
1837-38	50 no seniors.	1861-62	52	1885-86 76
1838-39	69	1862–63	48 16 in army.	1886–87 78
1839-40	63	1863-64	50	1887-88 65
1840-41	54	1864-65	41	1888-89 65
1841-42	52	1865-66	42	1889-90 72
1842-43	57	1866-67	53	1890-91 80

Year.	Reg. Spec.	Year.	Reg. Spec.	Year R. & S.
1843-44	55	1867–68	67	1891–92 85
1844-45	62	1868-69	67	1892-93 96
1845-46	64 I	1869-70	78	1893-94 124
1846–47	71	1870-71	67	1894-95 132
1847-48	71 11	1871-72	56	1895-96 142
1848-49	57	1872-73	5 2	1896-97 162
1849-50	54	1873-74	54	1897–98 186
1850-51	57	1874-75	64	1898-99 182
1851-52	53	1875-76	73	1899-00 193
1852-53	24	1876-77	73	1900-01 198
1853-54	27	1877-78	68	

The number of graduates in each of the years, so far as the catalogues in the library indicate, is as follows:

NUMBER OF	GRADUATES	EACH YEAR, IS	
1830— 4	1848—15	1866— 7	1884—20
1831— 2	1849—13	1867—10	188515
1832— 4	1850—16	1868—11	1886—15
1833— 7	1851— 7	1869— 9	1887—17
1834— 8	1852— 9	1870—12	1888—10
1835— 7	1853— 1	1871—18	1889— 7
1836— 5	1854— 5	1872—18	1890—12
1837— 6	1855— 4	1873—12	1891—15
1838— 1	1856— 5	1874— 9	1892—10
1839— 8	1857— 5	1875—11	1893—13
1840—14	1858— 4	1876—11	1894—14
1841—10	1859—13	1877—15	1895—24
1842— 7	1860— 9	1878—15	1896—24
1843— 9	1861—14	1879—18	1897—29
1844—11	1862— 6	1880—13	1898—28
1845—13	1863— 8	1881 3	189922
1846—16	1864—13	1882— 9	1900—36
1847— 6	1865— 9	1883—15	1901—40

The whole number of students named in the catalogue for each decade is as follows:

1030 40	-7/
1840–50	609
1850-60	356
1860-70	560
1870–80	
1880-90	678
1890-00	

The whole number of graduates for each decade is:

1830-40 52
1840-50 114
1850-60
1860-70
1870-80139
1880-90122
1890-00

The residences of the graduates, at the time of their association with the College, is as follows:

#### SUMMARY.

Alabama 1	New Jersey 3
Connecticut 6	New York 32
Illinois 3	Tennessee 1
Indiana 2	Texas 1
Iowa 2	West Virginia 2
Maine I	Wisconsin 2
Massachusetts 6	Vermont 2
Minnesota 1	Virginia 1
Michigan20	Foreign Countries 8
Pennsylvania21	Ohio682
New Hampshire 1	Address Unknown 13

The relatively small number of students and graduates in the seventy-five years of the history of the college is somewhat difficult to explain. The chief explanation, however. in my judgment, is this: The maintenance by the college of the highest scholastic standards. The larger part of the high schools and academies of the state and of the neighboring states have not been able to prepare students for admission to the college. Students, therefore, have been obliged to enter colleges whose standards were not so high as those of Western Reserve and Adelbert. Moreover, students who desired to avail themselves of the highest scholastic opportunities have been attracted by yet older colleges and as able. Students, whose families were possessed of means sufficient to send them to colleges outside of the state, have also been better able to send the students to fitting schools outside of Ohio which did prepare for the best

colleges. Therefore, the students having both the financial ability and the intellectual preparation for taking a college course in older and more famous colleges, have entered these colleges.

It is also a matter of fact to be observed that not a few of the Ohio colleges in the earlier time were co-educational. Western Reserve or Adelbert was never in a formal or technical way co-educational. For all practical purposes it was co-educational for a time. Therefore, being the larger part of this period open only to men, the number of students would naturally be about one-half of what the number would have been in case women had been admitted. At the present time it may be said that, including the students of the College for Women, the relative standing, in point of attendance of the two under-graduate colleges, is among the highest of all Ohio colleges.

For the first fifty years of its history, the course of study in the college remained substantially the same. changes in the content of the course of study were made. and also, none or few changes were made in respect to its required or elective character. It consisted during these years largely, though not entirely, of Latin and Greek and mathematics. However, from the very first, there were courses in science, in history and in English. In the earlier years too, Hebrew and Theology were taught. ical economy was given a place in the curriculum in the year 1842-1843. From the earliest year too, philosophy constituted a part of the course. The constant enlargement of the course of study, represents the enlargement during the seventy-five years of the life of the college of all human interests and relationships. In this respect, the curriculum has been sympathetic with the general enlargement the whole field of knowledge. The successive additions of departments of study and additions themselves made to the departments, are indicated in the histories which are herewith printed, which have been prepared by the heads of the departments concerned. The reading of the statements emphasizes the general truth that this college, in common with the best American colleges, has endeavored to keep pace with the constant expansion of man's knowledge, both of the exterior world and of his own being and achievements.

#### LATIN.

In the earliest catalogue of the College, that of 1831, in the list of the Faculty, appear the names of the Rev. Rufus Nutting, Professor of Languages, and Charles Preston, Tutor of Languages. Latin and Greek were not separated in the corps of instruction until 1861.

This first catalogue gives as the requirement in Latin for admission to college,—"A knowledge of Cooper's or Adam's Latin Grammar, and making of Latin; Virgil's Aeneid and Bucolics; eight select orations of Cicero."

With the addition of Cæsar, this would be practically the present requirement. The course of study in college, which was all required, was the following:

FRESHMAN YEAR— First term—Sallust, Livy begun.

Second "Livy finished.
Third "No Latin.

SOPHOMORE YEAR-First " Cicero de Senectute, de Oratore.

Second " No Latin. Third " Horace.

JUNIOR YEAR- First " Latin Excerpta.

Second "Latin Excerpta finished.
Third "Reviews in Greek and Latin.

There is no record whatever of the work of Senior year, and no statement of the amount of time devoted to each study in any catalogue before 1882.

In the next catalogue now on file in the Library, that of 1835, the Rev. Rufus Nutting appears as Professor of Latin and Greek Languages and Literature, and he continued to occupy that chair until 1840. There is no mention of tutors exclusively for Latin and Greek, in any catalogue, until 1844.

A tabular view of the course of study for this year is given, which shows that Latin was required throughout the four years except in certain terms.

FRESHMAN YEAR-	First	term-	-Folsom's Livy.
	Second	"	No Latin.
	Third	"	Horace or Lucretius.
SOPHOMORE YEAR—First		"	Cicero's Tusculan Disputations and DeOratore.
	Second	**	Tacitus.
	Third		No Latin.
JUNIOR YEAR—	First	"	Tacitus or Quintilian.
	Second and third	"	No Latin.
SENIOR YEAR-	First	"	Cicero de Officiis.
	Second	"	Selections from the Latin Poets.
	Third	"	Selections from the Latin Orators and Philosophers.

It is curious that no text-book is named except Folsom's Livy, and this was the case for many years. The introduction of Lucretius into Freshman year is also noteworthy.

No changes were made before 1839, except that in 1838-9, Tacitus and Quintilian were read throughout the Junior year. In 1839 Horace and Cicero were the only authors read in Sophomore year, and Latin ceased to be required in Senior year, and remained out of the course for that year until 1847.

In 1840 a most conspicuous name in the annals of the College appeared for the first time, when Nathan P. Seymour, M. A., became Professor of Latin and Greek Languages and Literature. This famous man presided over the Department until 1870. There was no material change in the Latin read until 1842 when the De Finibus was

placed in Sophomore year. After that date slight variations in the order and texts read were made, but there was no widening of the range of authors.

In 1844 Samuel T. Seelye, A. B., was made Tutor in Latin and Greek, and the next year he was succeeded by Rufus Nutting, A. B., the son of the first Professor of Latin and Greek. Mr. Nutting continued as Tutor until 1849.

In 1846-7 the course was still nearly the same as before, i. e.—

FRESHMAN YEAR— First term—Folsom's Livy.

Second " " Horace.

SOPHOMORE YEAR—First "Cicero de Officiis.

Second " Horace.

Third " Cicero de Oratore.

JUNIOR YEAR— First " Tacitus' Agricola, Germania and Histories.

Second "Quintilian.

It was hard in those days to get away from Cicero and Quintilian.

In 1847-8 there was no Latin in the first term of Junior year, but the same work was put in the first term of Senior year, an arrangement which was continued until 1855.

In 1849 Nathan S. Burton, A. M., was appointed Tutor in Greek and Latin. He was succeeded the following year by Thomas Doggett, A. B., who remained for two years, after which time there were no more Tutors in Latin and Greek.

In 1855 the statement of the courses in Latin in the catalogue is somewhat more detailed, and we find Arnold's Prose Composition and Roman Antiquities mentioned as studied in the first two years. From this time on, no Latin was required after the second term of Junior year.

In 1858 a somewhat noteworthy innovation occurred, namely the introduction of the Captivi of Plautus into the

course. This was read in the first term of Junior year and held its place there until 1861 when it was pushed forward into the third term of Sophomore year, and the Andria of Terence was inserted in the Junior year. Between 1859 and 1870 no Latin was required after the first term of Junior year.

In 1861 Edwin S. Gregory, M. A., was appointed Adjunct Professor of Latin and Principal of the Preparatory School, and held this position until 1866.

In the catalogue for this year appears the statement that "Prizes are given in the Junior class for Latin Composition", and these prizes continued to be awarded until 1870. This year also marked the introduction of Juvenal into the list of authors read.

The year 1870 was a notable one in the history of Western Reserve College, for Professor Nathan P. Seymour gave up his active work and was made Professor Emeritus of Greek and Latin. This step occasioned the division of the two languages, and the creation of separate chairs of Latin and Greek, an arrangement decidedly less rational and useful than the other.

Professor Allen C. Barrows, M. A., who had been for some years Professor of Mathematics and Perkins Professor of Physics and Astronomy, was transferred to the chair of Latin, being styled Professor of Latin and Instructor in English literature, and T. D. Seymour, B. A., the son of Professor Seymour and now at Yale, was made Professor of Greek and Instructor in Modern Languages.

In the course of the next two years more definite statements of the requirements for admission in Latin were formulated, and the amount slightly increased, so that in 1872 these requirements were as follows: Allen's Latin Grammar, Allen's Latin Reader, extracts from Cæsar, Curtius, Nepos, Sallust, Ovid, Cicero; Virgil six books; Cicero six brations; Arnold's Latin Composition. The

course was somewhat changed, Ovid and the study of the Roman Constitution and civil and military administration being introduced into Freshman year. In Junior year the required work was put in the second term, instead of the first, but the year was rendered especially notable by the fact that an "Optional" in Latin was offered to the Juniors in their second term. This was a course in the tenth book of Quintilian and Catullus, and was the beginning of the present Elective system. It is in the catalogue of this year also that the first description of the work in Latin appears.

Professor Barrows held the chair of Latin for only one year, and was succeeded in 1871 by the Rev. Lemuel S. Potwin, M. A., who was also styled Instructor in English. This secondary title was changed in 1881 to that of English Philology.

Professor Potwin widened the field of the required work by teaching Roman History in Freshman year and the History of Latin Literature in the Sophomore year. The "Optional" of the third term of Junior year was continued and consisted of Lucretius and Catullus. A much more extended description of the methods and objects of the work was made in the catalogue.

There was no further change of any importance until 1875, when the "Optional" was dropped, and nothing of the sort again appeared until 1883.

The typical course for this decade is that of 1875-6.

FRESHMAN YEAR- First term-Livy, Allen & Oreenough's Grammar, Smith's Roman History.

Second Cicero, II. Philippic, de Senectute, Latin Composition. .. Catullus and Ovid (Weale's Selec-Third

SOPHOMORE YEAR-First ٠. Horace.

tions). Tacitus, Juvenal, Martial. Second

.. Horace, Ars Poetica, Cicero and Third Quintilian on Oratory (Kellogg's Selections.

JUNIOR YEAR-Third The Captivi of Plautus, Lucretius. In 1882 the year was divided into two terms instead of three, and no Latin was required after Sophomore year. In the catalogue of this year the number of hours devoted to each study is given, Latin having 178 in Freshman, and 138 in Sophomore year. In earlier catalogues there are no data given from which the amount of time for each course can be determined.

The next year, 1883-4, saw Latin restored, as a requirement, to the first term of Junior year, at least in so far as each student was required to take either Greek, Latin or Mathematics for 43 hours.

An Elective in Latin was also offered to Seniors in the first term, but there is no statement of what it consisted.

In 1885 Samuel Ball Platner, Ph. D., was appointed Instructor in Latin and French, and in 1890 Assistant Professor of Latin and Instructor in French and Sanskrit. In 1892 Professor Potwin resigned the Professorship of Latin and was transferred to the chair of English Language and Literature, and Assistant Professor Platner was promoted to the full chair.

In 1885 the change in the course was made in consequence of which the required Latin was confined to Freshman and the first term of Sophomore year, but the number of hours was not materially diminished, there being 162 in Freshman and 108 in Sophomore year.

One Elective, Juvenal and Seneca, was offered for the first term, and two, Seneca and Suctonius or Justinian, and Lucretius and Terence, for the second.

This arrangement was maintained until 1888, when the amount of required Latin in Freshman year was slightly reduced, to 152 hours, and that of Sophomore year to 89, although it ran through the year instead of being crowded into one term. Two Electives, Juvenal and Pliny, were offered for the first term, and two, Lucretius and Latin Rhetoric, for the second.

During the year 1889-90 Mr. Platner was absent on leave, and his place was filled by A. L. Fuller, Ph. D., now Professor of Greek.

The required work in Latin was again reduced, to 147 hours in the first and 85 in the second term. Only one Elective was offered for each term during this year.

In 1890 the Group System of Studies was introduced, by which the Elective work of each department was arranged in two-year cycles, and in Latin two Electives were offered for each term of the two years. Although this hard and fast Group System was soon abandoned, the amount of Elective work offered has remained about the same.

In 1892 another change in the curriculum was made, so that for the second term of Sophomore year, each student could choose between Latin, Greek and Mathematics, and this continued in force until 1896, when a further change was made which resulted in the present arrangement according to which each student in Sophomore year must choose four out of five courses of which Latin is one.

Strictly speaking, at present Latin is required only during Freshman year and the number of hours assigned to it has dwindled to 102.

Since 1894 there have been three Instructors in Latin, Vernon Judson Emery, M. A., from 1894 to 1898, Arthur Hull Mabley, M. A., 1897-8, and Clarence Powers Bill, Ph. D., since 1898.

#### GREEK.

### TITLE AND PERSONELLE.

Previous to 1828 (when there were Sophomore and Freshman classes, a preparatory class and students in a partial course) the instruction in the College seems to have been given entirely by Mr. Ephraim T. Sturtevant, a gradu-

ate of Yale. Since that time the Chair of Greek has been occupied by five professors.

During the seventy five years of the College the Chair of Greek has been occupied by five professors. The first incumbent and the second professor appointed in the College was Rufus Nutting, who "was engaged in August, 1828, to give instruction for the fall and finally engaged for the entire year. In March following he was appointed Professor of Languages." As other languages were not at this time taught in the College the title meant the same as Professor of Greek and Latin, and in the catalogue of 1835 and subsequently the title appears as "Professor of the Latin and Greek Languages and Literatures." In the same year "Rev." is prefixed to Professor Nutting's name which is followed by the degree A. M. in 1837.

In 1840 Nathan P. Seymour, A. M., was appointed to the same Chair. In 1845 the words "and Literatures" were dropped from the title.

Professor Seymour became "Professor Emeritus of Greek and Latin" in 1870 when he was succeeded by his son Thomas D. Seymour, B. A., whose title "Professor of Greek and Instructor in Modern Languages" became that of "Professor of Greek" in 1877. Upon his appointment he was given leave of absence for two years study and travel in Europe. The work of the Greek Department was performed meanwhile by Mr. William R. Perkins, of the Class of 1868.

In 1881 Professor Seymour went to Yale and Bernadotte Perrin, Ph. D., was elected to succeed him in the Chair of Greek. His withdrawal, also to accept a Chair at

<sup>1</sup> Cutler's History of Western Reserve College, pp. 16 and 19.

<sup>&</sup>lt;sup>2</sup> Cutler's History, p. 19.

Names and titles of the Faculty are printed for the first time in the catalogue of 1881.

<sup>8</sup> L.L. D., 1870.

<sup>4</sup> M. A., 1875.

<sup>&</sup>lt;sup>5</sup> Cutler's History, p. 59.

Yale was followed by the appointment in 1893 of A. L. Fuller. Ph. D., as Professor of Greek.

I have been unable to secure details of the life of Professor Nutting, beyond the fact that he was a graduate of Dartmouth College.

A biographical sketch of Professor Nathan Perkins Seymour, who died in 1891, has been published.

Professor Thomas D. Seymour is now Hillhouse Professor of the Greek Language and Literature at Yale.

Professor Perrin is Professor of the Greek Language and Literature at Yale.

The catalogues show that instruction in Greek was also given by the following:

In 1831, Charles M. Preston, Tutor in Languages.

1844, Samuel T. Seelye, A. B., Tutor in Latin and Greek.

1845-6, Rufus Nutting, A. B., """ "" "

1849, Nathan S. Burton, A. M., """""""

1850, Thomas Doggett, A. B., "" " " "

1899, Clarence P. Bill, Ph. D., Instructor " " and since 1890 by the system of exchange courses have been given by the Professor of Greek in the College for Women:

In 1890 93, A L. Fuller, Ph. D.

1893- , Harold North Fowler, Ph. D.

In the titles there is noticeable a general tendency toward greater specialization, coincident with the differentiation of Departments which was made necessary as the curriculum was expanded in accordance with the demands of educational progress.

# PREPARATORY.

The requirements for admission are outlined in 1831 as:
's or Buttman's Greek Grammar.

Græca Minora, with a part of Neilson's Greek Exercises.

In 1835 the catalogue announces a preparatory course in connection with the College extending over two years to enter which a boy must be "more than 12 years old." The Greek work of this course is outlined:

FIRST YEAR.

Goodrich's Greek Lessons.

Goodrich's Greek Grammar.

Neilson's Exercises.

Græca Minora begun, Greek Reader.

SECOND YEAR.

Græca Minora finished, Greek Reader.

The Gospels of the Greek Testament.

Neilson's Greek Exercises.

The preparatory course was increased to three years in 1839 but the quantity of Greek and the amount of time given to it remained virtually the same until 1870.

The changes in the main consisted of the adoption of text-books by different authors or editors. The Græca Minora was gradually replaced by a "Reader," the Reader in turn by Xenophon's Anabasis.

From 1857 the four Gospels are no longer mentioned as required for admission and no substitute is suggested.

In 1868 we read that "additional Mathematics will be accepted as a substitute for a portion of the Greek, provision being made for instruction to supply the deficiency in that language."

In 1870 the Greek requirements for admission were:

Ancient Geography.

Greek Grammar.

Xenophon's Anabasis, two books.

The requirements were increased by an additional book of the Anabasis in 1872; a book of Homer's Iliad with

<sup>1</sup> The Græca Minora (which, previous to 1840, followed the study of Grammar and constituted the principal preparation for all colleges) was a stereotyped book consisting of selections from Æsop. Hierocles, Palæphatus, Lucian, Plutarch. Xenophon's Cyropædia, Old and New Testaments, Anacreon, Bion, Moschus, and Tyrtæus,—in all 120 pages of text with 100 pages of notes and 70 pages of vocabulary.

Prosody in 1882; a fourth book of the Anabasis and Prose Composition in 1884; sight translation of Attic prose in 1885; a third book of the Iliad in 1891, so that the preparation for admission now stands:

Grammar; Xenophon—four books of the Anabasis (for which one hundred and ten pages of Goodwin's Greek Reader will be considered as equivalent). Homer—three books of the Iliad, with Prosody. The translation at sight of easy passages in Attic prose. Prose Composition—the rendering into Greek of simple English sentences. History of Greece. Ancient Geography.

Since 1870 the amount has been increased by a full year's work and now corresponds to the requirements for admission to all the leading colleges.

# COLLEGE GREEK.

The catalogue of 1831<sup>1</sup> is the first in which an outline of the course of study is printed. The work in Greek is as follows:

FRESHMAN YEAR.

First term, Part of Greek Testament.

Second "Græca Majora (Xenophon's Cyropædia).
Third "Anabasis.

SOPHOMORE YEAR.

Second term, Græca Majora (Herodotus, Thucydides, Demos-

Third " " (Philosophical writers).

JUNIOR YEAR.

Second term, Græca Majora (Poets, Epic and Dramatic). Third "Reviews of Latin and Greek.

There is no mention of Greek in Senior year until 1835 when courses were given in the second and third terms. The number of hours given to the study are not specified, but recitations were probably daily.

<sup>&</sup>lt;sup>1</sup> In 1828 and succeeding years the question of the substitution of the Bible and other Christian authors for "heathen authors" in the curriculum was agitated. For details of this discussion see Cutler's History, p. 20.

The Græca Majora consisted of two volumes of selections—the first containing 364 pages of text of Prose authors with 170 pages of notes in Latin, the second containing 344 pages of Poetry with 296 pages of notes. Explanations of Syntax, Latin paraphrases of the Greek text, and arrangement of the Greek words in English order, make up the largest part of the notes. In course of time the Græca Majora was gradually superseded by separate editions of the authors read.

The acme in the amount of time given to required Greek seems to have been reached in 1838, when we find the course as follows:

#### FRESHMAN YEAR.

First term, Græca Majora, Historians.

Antiquities from Eschenburg's Manual by Fiske.

Second " Græca Majora, Historians.

Third

Eschenburg's Classical Geography and Mythology.

## SOPHOMORE YEAR.

First term, Homer's Iliad.

Eschenburg's Archæology of Literature.

Second " Græca Majora, Philosophers.

Eschenburg's Archæology of Art.

Third " Græca Majora, Orators.

JUNIOR YEAR.

First term, Græca Majora, Dramatists.

Eschenburg's History of Literature.

Second " Græca Majora, Dramatists.

Third "Graæca Majora, Epic Poets.

SENIOR YEAR.

Selections from the Latin and Greek Orators, Poets, Philosophers, by way of review.

Here too occurs the first catalogue note on method to the effect that "written translations, both on paper and on the blackboard, from the Latin and the Greek, are expected frequently from the students, especially during the first three years; and familiar class lectures from the instructors in this department."

The extensive introduction of Eschenburg's manuals is noteworthy. Courses in Antiquities and Archæology may not have commended themselves at this time, at any rate they are mentioned in the curriculum of 1838 only. Nor is Greek required of Seniors subsequent to this time nor does the catalogue show any provision of courses for Seniors again until the introduction of "Optional" courses in 1867 except that in 1860 and for several succeeding years there was given to Seniors in their second term a course in Demosthenes on the Crown under the caption of *Rhetoric*.

In 1839 we find the statement that "the student is expected to have as books of reference, Eschenburg's Manual of Classical Literature; Butler's Ancient Atlas; Buttman's Greek Grammar, translated by Robinson; Anthon's Classical Dictionary."

The amount of time given to Greek (through Junior year) in 1839 apparently remained constant until 1870. The authors read or the selections read from a given author were frequently changed perhaps indicating at different periods a slightly increased emphasis upon Philosophy, or Tragedy, or Oratory. In 1856 and for several years afterwards during Freshman and Sophomore years considerable attention was given to the Study of Grammar and Prose Composition.

In 1867 optional courses in Demosthenes on the Crown and Aristophanes' Clouds were offered, this being the first appearance of Attic Comedy in the curriculum,—there was no Aristophanes in the Græca Majora.

A reduction in the amount of required Greek in 1870 left it extending only through the first term of Junior year. Professor Thomas D. Seymour in this first year of his tenure announces as the three principal objects aimed at in the study of Greek "the acquisition of correct literary taste by critical study of models of style; to learn how to think and to express thought by studying the principles of language

and by translation into English; to master the contributions to our own language." Also "the Greek Drama is the subject of study in the Junior year, the main aim being to secure elegance of translation and an appreciation of the plays as works of art." Professor Seymour in 1875 introduced optional Greek into the second term of the Junior year, and in 1879 announced that "The study of Greek is maintained in its deserved prominence as indispensable to a complete literary training. Superior even to Latin as a language, containing literary treasures wholly unique in historical interest, and of unapproachable excellence; above all being the language of the New Testament, it has claims on the Christian student, which the College recognizes by providing thorough regular instruction supplemented by optional reading."

In 1882 the plan of two terms for the year was adopted and the amount of required work was still further reduced by allowing an election between Greek and Mathematics (in 1883, Greek, Latin and Mathematics) in the first half of Junior year, but an optional was offered for both halves of Senior year. The number of hours of recitation are here first given and amount to 328 hours of required work, 121 of optional work. In 1885 the Greek requirement was dropped from Junior year, and the optionals, now called electives, were opened to both Juniors and Seniors. system Professor Perrin expanded in 1886 to a cycle of four electives-one for each half of two years,-by which students could elect throughout their last two years without this cycle be introduced a systemrepetition. Asat atic course in Ar for the second half OF 1889 ave lectures to the nd Pergamon. enj. iculum was made in

ade to have three required through

Freshman year and made for Sophomore year one of five electives of which four must be taken. Nearly all students of the classical course elect Greek during Sophomore year. The number of electives offered has been so expanded as to allow students of the Junior and Senior classes to take two courses in Greek at the same time. Thus the required and restricted elective work of the first two years amount to 204 hours of recitation. Electives amounting to 408 hours can be taken.

Since 1890 when the Chair of Greek in the College for Women was established and filled, a system of exchange between the professors in the two institutions has obtained. The benefits derived from this system are principally two-fold. The students of each institution come in contact with another instructor and his methods. A greater variety of electives can be offered.

The ideal toward which the department strives is to teach as comprehensively as may be Greek civilization. a limited space of time, within a compact area, this civilization was built up and went through its decline-all long enough ago so that the several parts can be put into proper relation each to the other and a correct perspective secured and all made available for presentation as the result of centuries of pedagogical use. Many of the products of this civilization contained the beginnings upon which succeeding civilizations have built, many are still unsurpassed as mod-Study of Greek civilization is of course only possible through the medium of an accurate knowledge of the language itself. Courses (required and elective) are now offered in Epic Poetry, Drama, Oratory, Philosophy, Idyllic and Lyric Poetry, Archæology, and History, in connection with which much attention is, of course, given to the study of Religion, Politics, Law, Antiquity, and every phase of Greek civilization.

In common with the other courses of the period of the more limited curriculum the time given to Greek has been

cut down to make room for the introduction of other subjects, but probably one year has been gained in the quantity and quality of the work done in the best preparatory schools. The number of students who present Greek for admission fluctuates from year to year but the average shows some increase. As the College grows in numbers the proportion of the classical students to the total number of students diminishes, which is in part due to the fact that the increase in numbers is largely from high schools where, from motives of economy or of pedagogical principle, opportunity to take preparatory Greek is not offered. The department is now considering the question of the advisability of offering to such students a beginner's course, as a college elective.

PRIZES, HONORS, LIBRARY, ETC.

In 1889 a President's Prize of twenty-five dollars was offered to the Freshman making the best record in Latin and Greek. The prize was awarded for excellence in these subjects each year until 1893 when it was given for excellence in Ancient and Modern Languages. In 1898 and since a President's Prize of the same amount, has been given for excellence in Greek alone.

A system of two-year honors, to be awarded in several subjects of which Greek was one, was established in 1891.

A catalogue of the College Library printed in 1850 shows 69 titles in the Greek department, the Classical departments are now equipped with about 3,500 volumes. The most helpful accession was the purchase in 1893 of sets of several of the most important classical and archæological periodicals.

For several years the College has been enabled, through the generosity of some of its friends, to be a contributor to the support of the American School of Classical Studies at Athens and to be represented on its managing board.<sup>1</sup>

<sup>1</sup> Contributors to this purpose have been Messrs. C. W. Bingham, W. E. Cushing, A. L. Fuller, L. E. Holden, Samuel Mather, E. R. Perkins, E. P. Williams, and S. E. Williamson.

# ROMANCE LANGUAGES.

The early history of the Romance Languages in Western Reserve College is inseparable from the early history of German. It was a German, Karl Ruger, who gave instruction in them, or who offered instruction in them, at first privately and afterwards as part of the college work, though it was paid for as an extra by those who took it. There is every reason, however, to believe that German overshadowed its neighbors, and that the Romance Languages were hardly more than possibilities of student election. It was in 1843 that Ruger began his work in Hudson and in 1852 that it was ended. During his first year as a private teacher the college catalogue stated that he would give instruction at a reasonable rate in German, French and Italian. In 1844 Spanish was added to his curriculum.

After Ruger's connection with the college was severed. the statement that the languages would be privately taught was continued in the catalogue for a year or two, when they finally received (in 1855) a definite position in the regular course of study and were assigned to the third term of the Junior and Senior years. In 1861 Spanish disappeared, but Italian was retained with German and French. this interval and for the next decade no one member of the Faculty is credited with the instruction involved. Of the Romance Languages only French was taught and quite irregularly at that. The records of the college show that. from 1852 to 1872, the classes of 1861, 1868 and 1871 alone were credited with a course in that language. But other classes evidently took it as a partial course. The instructor during this period was Dr. N. P. Seymour, the professor of Greek and Latin.

In 1870 Thomas Day Seymour was made Professor of Greek and Instructor in Modern Languages, and his appointment was accompanied in the catalogue with the statement that "The modern languages are taught with special reference to their practical use as living languages." The assignment in the curriculum remained as before. 1872 the assignment is changed, after an existence of seventeen years, French and German are separated. third term of the Freshman year French Inflection required; in the first term of the Junior Voltaire's Charles XII, and in the second term of that year Molière is offered as an optional study. The new schedule appears to have been inaugurated with the class of 1876. No mention is made of Italian, which disappears from the schedule as Spanish had done ten years before. In 1875 the so-called Modern Language Course was established. French takes the place of Greek during the Freshman year, and Modern Languages appear among the optional studies of the second and third terms Senior year. The French requirements for the classical course remained as before.

In 1876 Modern Languages were honored with a professorship and Daniel F. De Wolf was appointed to the position. In 1879 the old statement of the catalogue regarding them gave way to a new and longer one, differentiating the work done in the classical and modern language courses. Lists are given of the text books used and authors The modern language course allowed time for pracread. tice in speaking French and German; the classical did not. In 1880 Arthur H. Palmer succeeded Professor De Wolf with the title of Instructor in Modern Languages. leave of absence being granted Mr. Palmer, F. M. Warren was appointed instructor. In 1882 the general course of study was revised. French was taught in the classical course for sixty hours during the first term of the Sophomore year. The Modern Language course substituted French for Greek during both terms of the Sophomore year.

In 1883 Mr. Palmer returned to a new professorship of German and gave the instruction in French, though without

official mention of his services. He was relieved of this duty in 1885 by the appointment of Samuel Ball Platner as instructor in Latin and French. In this year the curriculum was modified. In the classical course French is required for three hours a week the first term of the Sophomore year and two hours a week the second. French can also be elected for three hours a week the first term of the Junior or Senior years. In the Modern Language course French is required for four hours a week during the second term of the Sophomore year, and can be chosen later as an elective.

In 1889 A. L. Fuller replaces Mr. Platner, during the latter's absence, and a newly established Latin-English course appears, with French required for three hours a week during the first term of the Sophomore year and four hours a week during the second term. In 1890 both Mr. Platner and Mr. Fuller give instruction in French, and Mr. Platner conducts an elective in Italian, which does not, however, appear in the catalogue.

In 1891 F. M. Warren was appointed to the newly created professorship of Romance Languages. Mr. Fuller still held the title of Instructor in French. The same year the general curriculum is again remodeled. required in the classical course for four hours a week during the second term of the Freshman year, and in the Modern Language and Latin-English courses three hours a week during the Sophomore year. Opportunity has finally come for something more than elementary work and the electives in French cover three terms of the Junior and Senior year, three hours weekly. In addition Italian and Spanish are offered as electives for three hours a week for one year each. The electives in the three languages. together with one term of elective Latin, constituted the Romance Group of studies.

In 1893 a change is made in the required French of the Modern Language and Latin-English courses. They are

assigned four hours a week during the first term of the Sophomore year. In 1894 French is dropped from the required studies of the classical course. Is is taught four hours a week during the second term of the Freshman year, in the Modern Language and Latin-English courses. In this year the French electives are increased by one term and the Spanish decreased by the same amount. In 1895 French is required in the Modern Language course for three hours a week during the Freshman year, and in the Latin-English course four hours a week during the second term of the Sophomore year.

Finally, 1896, the present curriculum was adopted, whereby French is required in the Modern Language course only for three hours a week during the Freshman year. It is an elective as an elementary study for the Classical and Latin-Scientific courses three hours a week throughout the Sophomore year, and is an elective as advanced reading for four terms to students who have had the year of elementary work. Italian and Spanish remain as before.

The main object of the instruction in Romance Languages during the last decade has been literary rather than linguistic. The language of the class-room has been English, and from all the evidence available this method has always been the one employed.

#### GERMAN.

The statement of the college catalogue for 1842-3 that instruction in French would be given without charge to Seniors and Juniors who desired it, marks the beginning of instruction in the modern foreign languages in Western Reserve College. The catalogue of the following year contains a paragraph to the effect that instruction in the German, French and Italian languages would be given to those students who desired it, on very reasonable terms, by

Mr. Ruger, a native of Germany. The collegiate year 1843-4 is therefore the starting point for instruction in German in this college.

German, like French and Italian, had no place in the curriculum for many years after this date. It was evidently taken as an extra and paid for as such by those students who felt disposed to study it. Beginning with the catalogue of 1845-6, Karl Ruger is mentioned as instructor in modern languages at the end of the list of faculty and instructors, and appears in this capacity for the last time in the catalogue of 1851-2. Interesting information about the meager facilities which Ruger had for his work, so far as they were supplied by the college, is furnished by the printed catalogue of the books in the college library. This was published in 1850, and in addition to the titles of a few German grammars and dictionaries it mentions only Schiller's Kleine Theaterstücke as the sole representative of German Literature.

The status of the modern languages remained unchanged from 1843-4 to 1855-6. The catalogue of this latter year, however, gives the "Modern Languages, French, German, Italian or Spanish" a place in the curriculum, including them in the list of studies for the third term of Junior and also of the same term of the Senior year. No mention is made of an extra charge for instruction. The modern languages had therefore won a place in the curriculum, and instruction in them was included in the general tuition fee.

Under the heading, Courses of Instruction for Graduates, a paragraph appeared in the catalogue of 1847-8, and for several years afterwards. The modern languages were included among the subjects mentioned, but they alone required an additional fee. It is probable that the whole scheme was mainly on paper. When the statement about instruction for graduates appeared again in the catalogue

for 1866-7, after having been omitted for several years, no mention was made of the modern languages in it.

Beginning with 1850-1 instruction in French, German, Italian and Spanish was offered "at a moderate expense" in the preparatory department, but the catalogues of 1855-6 and thereafter no longer mention these languages in connection with this department.

From 1855-6 to 1872-3 the modern languages retained their place in the third term of the Junior and Senior years. For nearly all of this time the catalogues do not state who taught these subjects. Ruger's connection with the college ended in 1851-2. B. B. Tremelin appears as "Instructor in the German Language" in the catalogue for 1858-9 only. Thomas D. Seymour became professor of Greek and instructor in modern languages in 1870-1. In the intervening years this work was doubtless done by one or more of the occupants of other chairs. In the latter part of this period instruction in German was certainly given by President Cutler.

In the first two years of the service of Professor Thomas D. Seymour as instructor in modern languages no change was made in the place of these languages in the curriculum. The catalogues for these years contain the statement, which was repeated annually till 1878-9, that the modern languages were taught "with special reference to their practical use as living languages."

Up to the collegiate year 1872-3 it is impossible to say what modern languages were really taught, as no details were given in the catalogue. It is not probable that French, German, Spanish and Italian were actually all taught in any one year, and whatever instruction may have been given must have necessarily been very elementary from the brief time allotted to it. In the latter part of this period, and possibly in the former, German is known to have been the language generally studied. In the catalogue

for 1872-3 French is, however, assigned to the third term of Freshman and as an "optional" to the third term of Junior year, while German was given a place in the second term of Junior and the third term of Senior year. Until the removal of the college to Cleveland the year was divided into three terms. This first definite statement mentions Whitney's Grammar and Reader as the work of the first term in German, and Schiller's Maria Stuart as that of the second. Henceforth it is possible to distinguish the work in German from that in French and the other modern languages.

The situation as regards German remained essentially unchanged for several years. The catalogue for 1875-6 announces that thereafter students might enter without Greek and substitute the modern languages (that is, French and German) for the Greek of the college curriculum. No modern language was required to enter this new course at that time.

Daniel F. De Wolf became "Professor of Modern Languages and Oviatt Professor of Rhetoric" in 1876-7. The new course in modern languages had therefore necessitated the establishment of a new professorship, and this year marks a definite stage in the growth of instruction in these languages.

In 1879-80 Whitney's German Grammar and 100 pages of Whitney's German Reader were added to the entrance requirements of the new modern language course. Students in it were required to take French, daily, through the Freshman, and German, daily, through the Sophomore years, and were allowed to take these languages as "optionals" in the latter years of the course. "In German, besides Whitney's Grammar and Reader, or Otto's Method, Anderson, Schiller, Lessing, Goethe are the authors read."

Arthur H. Palmer succeeded Professor De Wolf as instructor in modern languages in 1880-1. In the following two years, during his absence abroad, this place was taken

by Frederick M. Warren. In 1881-2, the last year at Hudson, the entrance requirements for the modern language course were increased by the addition of 50 pages of Whit ney's *Reader* In the classical course the position of German was what it had been since 1875-6. It was required in the second term of Junior year, while the modern languages were "optional" in the second and third terms of Senior year.

The removal to Cleveland in the autumn of 1882 made no immediate change in the status of German. Arthur H. Palmer returned to the college at the opening of the year 1883-4 with the title of Professor of the German Language and Literature. The amount of German required for admission was increased in 1884 and again in 1885, and has since then remained the same in quantity. The last increase put the entrance requirements for this course on the same level as those for the classical in the amount of time and effort required. In these years German was obligatory through the Freshman year of the modern language course and in the second half of the Junior year, with no opportunity to elect it later.

In 1885-6 German was required through the Freshman and the first half of the Sophomore year of the modern language students.

It was also required in the second half of the Sophomore year in the classical course, and made an elective for both courses in the Junior and Senior years. Three years later it was made a requirement through the whole of the Sophomore year in the classical course, being an elective, as before, through the Junior and Senior years. This extension of the work in German in the classical course was accomplished by adding the more advanced students to the classes already formed for the modern language course.

In 1889 the Latin-Scientific course was established. From the outset German was made obligatory for the

A significant factor in the German work is the library. The fact has already been mentioned that one volume had to do duty as the representative of the whole of the German literature in 1850. For years afterwards the growth of the German section was almost imperceptible. The catalogue for 1884-5 announces that Mr. George Mygatt had made a gift of \$1,000 for the department of German. greatest expansion came, however, with the purchase in January, 1887, of the library of the late Professor Wilhelm Scherer, of Berlin. Professor Scherer was a wise collector of books, and his interest in the history of German literathre led him to get together a collection which, for its careful selection and representative character, had few rivals in private libraries of German literature. Since the acquirement of this valuable collection the German department has been considerably extended by the aid of donated money from benefactors of the college and by regular annual appropriations. As a working collection this department of our library has now few equals in this country.

# ENGLISH LITERATURE.

Our college was in existence more than forty years before any formal instruction was given in English Literature. This does not mean that we were behind other colleges in this respect. The seeming neglect of English Literature was general, and for the reason that English, in the view of the time, was to be read, and need not be a college study. This opinion need not be despised, but it has been outgrown. In old times not a little of English reading in college had the peculiar flavor of a stolen feast. It is now believed that English has a distinct and great value among advanced disciplinary studies, and that the careful and appreciative literary study of the great English classics not only gives new value to all reading and is essentiated.

Freshman in this course, and has remained so to the close of the present academic year. In the Sophomore year it has been, for the most part, an elective.

After Professor Palmer closed his connection with the college, Frank S. McGowan became instructor in German with the beginning of the year 1891-2. The first considerable extension of electives in German began in the year 1892-3. Mr. McGowan retired after two years of service and Charles Harris was made Professor of German at the beginning of 1893-4. In the following year William H. Hulme came as an additional instructor in German, dividing his work between Adelbert and the College for Women. On Mr. Hulme's transfer to another department in the College for Women, Edward Meyer succeeded him as instructor in German for the two colleges. Mr. Meyer has been since then wholly accredited to Adelbert. change system with the teachers of German in the College for Women has been in force most of the time since the establishment of the chair of German in that college in 1892-3, with Robert W. Deering as professor.

The extension of the elective work makes it possible for any student to have courses of instruction in the German language and literature through the whole of his college career. The study of the successive catalogues since 1875 now shows clearly that this is the end to which development of instruction in German was, consciously or unconsciously, directed. The influence of the modern language course in this direction has been great. Nevertheless the number of students in this course has been relatively small from the beginning, and shows no signs of large increase. In 1881-2 the number was 8, out of a total of 75 in the whole college; in 1890-1, 12 out of a total of 80; in 1900-1, 35 out of a total of 198. On the other hand, the number of students who enter the other courses with preparation of at least one year in German, is constantly increasing.

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tial to the progress and development of our literature, but also broadens one's view of history and greatly enriches the character.

In Western Reserve College the beginning of classroom teaching of English Literature was made by Professor
A. C. Barrows, Professor of Latin, who, in the year 1870-71,
gave his class lessons in Shakspeare's Macbeth. This
beginning was not due to the example of any other college,
nor to any very distinct authorization of our own Faculty,
but to the wise determination of the beginner. "I put it
in," he says, "in connection with the study of classic plays,
by way of comparison."

Before this beginning the works of English authors were not seldom mentioned in the class-room of Dr. N. P. Seymour, who for thirty years had been Professor of Latin and Greek. His very wide and critical reading and exquisite taste did not fail to have a stimulating overflow whenever he found students that could appreciate it. That Dr. Seymour should afterwards be asked to lecture on English Literature in the College would be almost a matter of course. His lectures began in 1877 before the Junior class, and were delivered annually till 1891, increasing in number and interest, and drawing, after the College was moved to Cleveland, a considerable attendance of cultivated hearers outside of the College.

The successor of Professor Barrows in the chair of Latin, in 1871, found time for English by robbing the Latin. The literature was for some years subordinate to the language. In 1876 twenty-two lessons were given to the Juniors, of which ten were on the language, the remainder being on selections from authors. The study of Anglo-Saxon, or Old English, was introduced on the ground that to appreciate a literature we must know its language, and that one cannot understand the English language without some knowledge of its earliest forms and use. This study grew till from 1882 to 1895 from thirty to

fifty lessons a year were given and were required of all the students.

The great change in the curriculum by which elective studies were introduced in Junior and Senior years, affected English Literature at once and strongly. The appointment of an Assistant in Latin, in 1885, led to a systematic arrangement of elective courses in English authors, and an enlargement of the same was made in 1892, when the chair of Latin was filled by Professor Platner, and English Literature was no longer an appendage to another chair. About the same time the Professor of Rhetoric begin to offer electives in literature. This was continued by Dr. Davidson (1894-95), who offered five literature courses; and, at present, of the fifteen courses, five are offered by the department of Rhetoric.

As to the number of students that choose English Electives in literature, a specimen may be given in the attendance in six of the classes of this year: English Poets, from Chaucer to Pope, 11; from Pope to Tennyson, 14; Shakespeare, 11; Tennyson, 13; Browning, 9; American Literature, 9.

The history of English Literature in this College suggests what is to be hoped for in the future. Our literature is the heir of all literatures of the past. English is not a rival of classical literature, but a completion of it. is, also, bound by organic and life-giving ties to the other modern literatures. The unity of all literary study can be found, if we so will, in the study of English, Greek, Latin, Italian, French, German-these are streams that flow into English. Biblical, classical, ancient, modern are one in English; blended by genius that not merely accumulates but creates, adding new to the old. The English study of the future, then, broad and deep, vitally intertwined with all the other college literary study, will glow with the inspiration that comes from the whole field of highest and best human thought.

#### RHETORIC.

The earliest reference to the teaching of rhetoric, in the catalogues still preserved, occurs in that of 1831. third term of the Freshman year included "English grammar reviewed, with elements of rhetoric and Porter's Rhetorical Analysis.'' In the first term of the Senior year "rhetoric and intellectual philosophy" were also taught. must be added a general statement, as follows: "An exercise in declamation, or in English composition, is attended on the afternoon of each Wednesday; and written translations or compositions are required daily in connection with the recitations." It is worth notice that the only reference to an English requirement for entrance is "a grammatical knowledge of English," which is sufficiently indefinite so that probably no students were excluded because of it.

Analysis of the statements shows above that they refer very largely to what is now called elocution, as well as to rhetoric and English composition. Porter's Rhetorical Analysis, for example, is a treatment of vocal expression, though no doubt very profitable in its way. The Senior rhetoric was probably mainly, or wholly, argumentation. Rhetoric, in the sense of English composition, probably included only the "written translations or compositions... required in connection with the recitations," and essays required at the rhetorical exercise on Wednesday afternoon, though perhaps the declamation was sometimes written by the speaker during his Junior or Senior years. Yet, if the daily written work "in connection with the recitations" was faithfully insisted upon, and as faithfully corrected and explained to the student, it must have been of the greatest advantage. Indeed, the arrangement was almost ideal, for the practice in writing was based upon that about which the student was naturally thinking day by day, and on definite subject matter to which his attention was directed by his regular studies. On the other hand, unfortunately, the

program may not have been carried out with seriousness, and the drill in writing, so far as recitations were concerned, have been practically wanting. This was probably true when students became more numerous, if not at the beginning. The latter may be inferred, perhaps, from the establishment of a professorship of rhetoric and oratory in 1835, though no professor was appointed until five years later.

The title of this professorship was changed to that of Sacred Rhetoric in 1837, when it became a part of the theological department, though with inclusion of work in the college. The next year the professorship was endowed by Mr. Oviatt, and in 1838 it was filled by the appointment of Rev. Henry M. Day, A. M. Meantime the earliest statement with regard to rhetoric had been considerably enlarged, as shown by the catalogue of 1837. It may be inferred, however, that it still fell short of what was hoped for, since the catalogue of December, 1837, has the following:

The professor of sacred rhetoric will be expected to give instruction in the collegiate department. When that professorship shall be filled, a complete and systematic course of studies under this head will be exhibited in the catalogue. In the meantime, instruction will be given by the other professors, in the second term of the Freshman year, in the principles of the English language and the elements of composition, and in the third term in Porter's Analysis of Rhetorical Delivery; in the last term of the Junior year in the principles of criticism; and in the last term of the Senior year in Whateley's Rhetoric. The members of the three lower classes will be expected to prepare an original composition of some sort at least once every fortnight, and much of the studying of the Senior year will be done with the pen. There will also be a rhetorical exercise in the chapel before all the members of the college every Wednesday, in which every student will share in his turn."

When Professor Day took the chair, the course laid out by him was as follows:

FIRST YEAR.—Science and art of elocution, through the year; First and second terms, translations from Latin authors; Third term, English composition.

SECOND YEAR: English composition, throughout the year; Third term, Cicero de Oratore.

THIRD YEAR: English composition, throughout the year; First term, Oration of Demosthenes on the Crown; Second term, Quintilian's Institutes, four books.

FOURTH YEAR: Original declamations; Third term, Whateley's Rhetoric.

"The members of the three lower classes exhibit specimens of translation or English composition, each once a fortnight. The Senior class write frequently on topics connected with their course of study. There is a rhetorical exercise in the chapel every week before all the members of the college, in which every student will share in his turn."

Professor Day deserves a special word as a man of exceptional energy, a prolific writer in connection with this subject, and one who has a worthy place in the history of rhetorical theory. He was a graduate of Yale in 1828. Besides numerous other books on various subjects connected with his teaching at different times, he printed no less than four on the general subject of rhetoric. They are the Art of Elocution, 1844, revised 1860; The Art of Rhetoric, 1850 revised 1867; Rhetorical Praxis, 1860, and The Art of Composition, 1867. In these books Professor Day first set forth the four-fold analysis of all forms of writing into the four fundamental ones of narration, description, exposition, and argument, which has since been generally adopted.

In 1846 Professor Day became professor of practical theology, carrying the Oviatt foundation with him, and the subject of rhetoric was attached to the chair of intellectual philosophy. It remained so attached under Professor S. C. Bartlett (1846-52), Professor H. B. Herford (1853-60), and Professor, later President Cutler (1861-76). During this period rhetoric seems to have taken a somewhat more subordinate place, as might be expected from the loss of the independent foundation. Besides, when students increased in number also, each could be given less individual attention. Instead of daily written exercises, as at the begin-

ning, and fortnightly exercises under Professor Day, there were, in 1870, six declamations in each of the first two years, and three original declamations in each of the last The written exercises were reduced to "several" written translations from Latin and Greek in two terms of the Freshman year, and from ten to thirteen compositions a year during the rest of the course. It should not be forgotten, however, that this was the flourishing period of the literary society, of which there were two at Western Reserve, and that they furnished an excellent practice ground for the young speaker or writer, though without the guidance and criticism of teachers. During the thirty years following 1846, there were also special instructors in elocution for three years, Mr. Alexander Kennedy from 1848 to 1850, and Mr. James R. Severance in 1875-76.

From 1876 to 1880 the Oviatt professorship of rhetoric became an adjunct of the professorship of modern languages under Daniel R. De Wolf. Again instruction in this department seems to have been at a low ebb. Reference in the catalogue is now made for the first time to the literary societies, as if the efforts of students in them, without guidance and criticism of a teacher, were fully equal to the instruction in the College. The amount of written work can hardly be determined, but it could not have been great in the hands of an instructor who was also responsible for French and German.

After many wanderings and entire abandonment of the theological character with which it started, the Oviatt professorship of rhetoric was again made a separate chair, and filled in 1882 by Rev. Edwards Park Cleaveland, who continued to hold it until 1895. At the beginning of Professor Cleaveland's term the amount of time given to elocution and rhetoric, in the so called rhetorical exercises, was about two hours a week for the first two years, and one for the last two. These, however, were the hours of attendance upon

an exercise at which one declaimed or read an essay in turn, about twice a term. The amount of individual work was probably not greater than in earlier times. For example, while sixty-six of these attendance hours were required of the Freshman in English, one hundred and sixty-six recitation hours were required in Greek, and one hundred and seventy-seven in Latin. These hours decreased rather than increased in the next ten years, though a somewhat more definite place was given rhetoric by the offer of an elective for the first time in 1887-88, and by requiring three hours of recitation a week during the first half of Freshman year, in addition to the "rhetorical exercise."

The "rhetorical exercise" disappeared at the close of Prof. Cleaveland's term, as it disappeared in so many institutions about the same time. The reason for this is worth a moment's attention. In the first place such an exercise, which the student perhaps met for the first time on going to college in the fifties and sixties, had become a part of the secondary school course. Besides, under a single instructor and with largely increased numbers of students. the exercise could not be graded and adapted to different years and different attainments. It was probably more or less irksome for Juniors and Seniors to hear Freshmen and Sophomores declaim, although an audience of his fellows was of real value to the speaker. Finally, the growing interest in learning to write occupied the attention of both The old exercise had real value when student and teacher. conscientiously carried out by the student. As a compulsory exercise it has been finally relegated to the secondary school. The College provides, and should provide, elective work in public speaking for such students as wish to enter the special fields of the law and the ministry.

In 1895, under Associate Professor Davidson who was appointed in 1894, the required course in rhetoric, so far as hours are concerned, was established in the Freshman and

Sophomore years as at present. For the first time also electives in the subject were also made to rank with those of other subjects in number and variety. At the same time a special instructor in elocution, Rev. A. B. Cristy, was appointed. Mr. Cristy's work was wholly elective, and in 1899 was assumed by the instructor in English, Dr. E. C. Baldwin, who carries on such elective work as is needed in more direct connection with courses in rhetoric. This direct connection of oral and written expression has been fostered by the recent establishment of a course in argument and oratory in the college, and by renewed activity in the literary society and in intercollegiate debating under more or less direction and assistance by the department.

In summary of the general course of development in the department, it may be said that rhetorical teaching originally centered about oral rather than written expression. The great advance in rhetorical theory and practice in the last seventy-five years has been in the direction of written expression, though without disregarding public speaking. Rhetorical teaching in the newer sense has been given a place of equality with other studies in the regular recitation program, and the recitation has been largely supplemented by regular and systematic tutorial or individual work. A new interest in public speaking is beginning to be shown in renewed attention to the literary society and to debate.

### LINGUISTIC TRAINING IN ENGLISH.

The history of linguistic training in English is naturally brief, though the first reference to it occurs seventy years ago when English grammar was "reviewed" in the first term of the Freshman year. Forty-one years later (1872-73) occurs the first reference to Old English, or Anglo-Saxon, as follows:

"Besides the drill in English expression, and the study of the idiomatic peculiarities of the language and the history of words secured by the Latin and Greek courses, the Anglo-Saxon or Old

English will be studied, including its relations to the other Indo-European languages, and the changes by which it has become the English of our day."

This study was provided for by requiring Hadley's History of the English language in the third term of the Junior year.

In 1877-78 Professor Potwin added the instructorship in English Philology to his professorship of Latin, and students read with him the gospels of St. John in Anglo-Saxon in addition to the study of Hadley as above. This recognition of the study of early English in Western Reserve indicates a growing belief in the country as a whole that some knowledge of the earliest period of the mother tongue should be provided for college students. Under the expanding elective system the requirement of such a course, except for a brief course on the history of English in the Sophomore year, was abandoned, and Old and Middle English were made elective for such as wish to prepare for teaching, or for more fundamental study of the English language for some special purpose.

### PHILOSOPHY.

Practical interest in religion and morals gave rise not only to the institutions of higher education in America, but also to a theoretical interest in the problems of life and mind. Philosophical activity ran along theological lines and here early America produced her most acute metaphysician, Jonathan Edwards. These interests and drifts manifested themselves as strongly in the founding of Western Reserve College as in the establishment of Yale. Indeed, the former college was called "the Yale of the West." Not only was it at the center of the Connecticut Reserve, but the movement which culminated in its foundation and equipment was championed by men from Connecticut who had received their education in the colleges of New England. The great

majority of the leaders were clergymen who had become acquainted to some extent with the main lines of thought, as presented in the English and in the Scottish schools of philosophy. While Locke's Essay concerning Human Understanding was the classic, the thoughts of Berkeley, Hume, Reid and Stewart had become current. The Deistic controversy had brought forth one book, Butler's Analogy and Sermons, that appealed with special force to the English and to the American mind. This great work became the most prominent text-book in the American college during the greater part of the nineteeth century.

In March, 1828, the Rev. Charles Backus Storrs was elected professor of "Sacred Theology." He had been, for about three years, a student at Princeton. Whether he there studied Berkeley, who at that time was a favorite in the college, is not known. That President Storrs was an exceptional scholar, that his life and teaching resembled, in many respects, that of the Bishop of Cloyne, is evident from the few biographical notes and appreciations left to us. "It is quite probable," says Dr. Cutler, "that President Storrs instructed in mental and moral science and the evidences of Christianity."

The Rev. Clement Long, a graduate from Dartmouth College, was elected professor of intellectual and moral philosophy in March, 1834. This position he held until 1844, when, on the resignation of Dr. Hickok, he was transferred to the theological department. It is recorded that Professor Long returned, in 1860, to give instruction for one term in moral philosophy. Instruction in philosophy began the first term in Sophomore year with Locke's Conduct of the Understanding, or Abercrombie's On the Intellectual Powers. In the first term of Senior year Stewart's Elements of Intellectual Philosophy and Whateley's Logic were studied. In the second term of the same year Wayland's Moral Science, with lectures, were given.

In 1842 Professor Long gave a course on Plato's Republic to Sophomores in the second and third terms, and a course on Cicero's De Officiis to the Juniors in the third term. fessor Long's sympathies were in the main with the Scottish school of the Stewart type, as is seen in his selection of texts and by his use of Cousin's Psychology, which is primarily an attack on Locke. That he was also acquainted with the transcendental drift in New England is suggested by his use of Cousin's Psychology and Hedge's Logic. That Professor Long was much interested in the application of philosophy to practical life is attested by his lectures on "The Object and Method of Study" and his courses in Wayland's Political Economy, and in Story on the Constitution. Professor Long's views on the method of teaching philosophy are well worth quoting: "There are infelicities attending the exclusive use, in this department, either of text-book instruction or of instruction by lecture, and the investigation of subjects under the direction of the professor. The former method does not necessarily call into exercise the reflective powers of the student. It permits him to learn by rote the sentiments of an author, without forming any opinions for himself. The other method supposes more maturity of mind than is usual in students at this stage of their progress. It also leaves it too much to their option whether they will make a diligent and faithful improvement The mode of instruction which is pracof all their time. tised in the Senior class unites the advantages of both these methods. The student is required to recite from text-books. as in other departments, and to know not only what he thinks, but what his author thinks. He is expected to bear as rigid an examination upon the principles laid down in books, as he is in the department of mathematics. same time his own views are elicited upon the topics as they present themselves in course of recitation. He is also required, frequently, to write upon themes proposed by the instructor, and his compositions are made the subject of remark and criticism. And the most important principles are further illustrated by lectures from the professor." William H. Upson, Esq., of the class of 1842, writes April 7th, 1901, "Professor Clement Long was regarded by every one in college as a most excellent teacher and was highly respected by all. I do not know whether he published anything nor where he resided after leaving Hudson."

Laurens P. Hickok, a graduate of Union College, was connected with the theological department from 1836 to 1844, when he was called to the chair of theology in Auburn Seminary, and later to the presidency of Union College. He is significant in the history of philosophy in America for the metaphysical character of his lectures, for his numerous publications in philosophy, and as being the first writer in America to show in a marked degree the influence of Kant. In 1839 he was lecturing in Hudson on the following subjects: Mental Philosophy; Ethics; Foundation of Right, Moral Agency, Nature and Design of Law; Province of Reason and Philosophy of Religion; Doctrine of Natural Religion. Among Dr. Hickok's publications are Rational Psychology, 1848, Empirical Psychology, 1854, Moral Science, 1853, Rational Cosmology, 1858. lected works appeared in Boston in 1875. These works have been used as texts in many American colleges. tion should also be made of Henry N. Day, a graduate of Yale College, who, though a member of the department of theology, found his chief interest in philosophy. During the interim from 1844 to 1846, when there was no regular professor of philosophy in the college, Professors Long and Day probably gave the required instruction. Professor Day is the author of works on the following subjects: Art of Discourse, Psychology, Logic, Aesthetics, Ethics, and Outlines of Ontological Science—the last work was published by Putnam's Sons, New York, 1878. It is doubtful

if any other college in America had, in the period from 1840 to 1844, three so able men in philosophy as Long, Hickok and Day.

In 1846 Samuel C. Bartlett was appointed professor of philosophy and rhetoric. He pursued the same lines laid down by Professor Long. In 1847 to 1848, when an effort was made to establish a post-graduate school, he offered as advanced studies, Aesthetics, Logic and Ethics. Professor Bartlett resigned his position in 1852, and later became president of his *alma mater*, Dartmouth College.

In November, 1853, Henry B. Hosford, a graduate of Williams College, was elected "professor of intellectual and moral philosophy and rhetoric," entering upon his duties in January, 1854. Here the instruction in philosophy, begins in the second term of the Junior year with Whateley's Logic, followed in the Senior year with Stewart's Elements of Intellectual Philosophy, Cousin's Psychology, Wayland's Moral Philosophy and Butler's Analogy.

In 1860 the Reverend Carroll Cutler, a graduate from Yale College, was appointed professor of philosophy. fessor Cutler became president of Western Reserve College in 1871. Before this time Professor Cutler's order of study was to give logic in the first term Junior year, beginning with Hamilton's Metaphysics in the first term Senior year. followed by Stewart's Moral and Active Powers and Locke's Essay concerning Human Understanding in the second After Dr. Cutler became president his courses in philosophy were as follows: In the second term Junior year he used Porter's Elements of Intellectual Science, Parts I and II, while in the Senior year he gave Parts III and IV of the same work with his own lectures on logic. In ethics he used Butler's Analogy in connection with his own lectures. President Cutler also gave courses in international law, constitutional law, and political economy. His views concerning teaching philosophy are laid down as

"The course in philosophy comprises the systematic study of psychology, metaphysics, logic and moral philosophy, in the best text books, accompanied by lectures, with constant and free discussion of every subject in the class-room. No views are enforced by authority. The aim is to present as full a view of the subjects as possible and to bring every man to think and decide for himself, with such assistance and correction as are consistent with freedom of thought and intelligent conviction." In 1876 President Cutler issued "A History of Western Reserve College during its First Half Century 1826 to 1876." In 1889, the year after his resignation of the Chair of Philosophy, Dr. Cutler published "The Beginnings of Ethics," one of the most valuable treatises on the subject that has appeared in "The chief aim is to show how ethics arises psychologically and logically out of the nature of the soul and the necessary assumptions of its thought and action." Dr. Cutler was a great teacher and exercised a profound influence on his pupils.

Upon Professor Cutler's retirement William O. Krohn, Ph. D., Yale, was chosen instructor in mental and moral philosophy. In 1889 to 1890 147 hours were required in philosophy, 63 hours less than under Dr. Cutler, while two electives appear, viz., physiological psychology and history of philosophy. In 1891 with the introduction of "the group system" the required philosophy was reduced to 96 hours.

In 1891 Mattoon M. Curtis, Ph. D., Leipzig, was elected professor of philosophy on the Truman T. Handy foundation. Before 1895 and 1896 psychology and logic were required studies, but since that time all philosophical studies have been elective. In 1899 Walter T. Marvin, Ph. D., Bonn, was chosen instructor in philosophy. The department of philosophy now offers to students the following courses: Psychology, educational psychology, authro-

pology, logic, advanced logic, introduction to philosophy, ethics, advanced ethics, history of philosophy, ancient and modern, psychology and philosophy of religion, philosophy of society, and theory of knowledge. Under the elective system the department of philosophy now offers 343 hours each term or 1372 hours through Junior and Senior years. Students are advised not to take more than three courses per term in philosophy. On the basis of three courses it is possible for the student to receive 576 hours of instruction in philosophy during his course. The classes at the present time including post-graduates number about 146. While the seminary method has been introduced in some of the more advanced courses, the general method of teaching is not different from that laid down by Profsssors Long and Cutler. We acknowledge our gratitude to Henry R. Hatch, Esq., the donor of the Hatch Library Building, for a liberal sum for the purchase of books for the department of philosophy, also to Mrs. John S. Newberry, for founding the Handy prizes in philosophy. The library of the department which ten years ago numbered but a few hundred books, now contains about two thousand volumes well selected and has a well equipped seminary room in the Hatch Library Building.

This brief sketch should not be concluded without a reference to our most illustrious alumnus in philosophy, Professor George Trumbull Ladd. Born at Painesville, in 1842, graduated from Western Reserve College in 1864, he is now at the head of the department of philosophy at Yale University. (In 1879 Professor Ladd was led to begin his independent investigations into physiological and experimental psychology by the conviction that the whole fabric of philosophic and theological opinion must be revised in the light of modern psychological, critical and historical science. His were the first lectures on experimental and physiological psychology given in America. Professor

Ladd's point of view is that every problem whether speculative, historical or theological has its root and the possible clue to its explanation in the science of mental life. this standpoint he has written. The Doctrine of Sacred Scripture, An Enquiry into the Origin and Nature of the Old and New Testaments, two volumes, New York and Edinburgh, 1883; Elements of Physiological Psychology, a treatise on the nature and activities of the mind from a physical and experimental point of view, New York and London, 1887. Both in England and America this work has undoubtedly been the most important factor in the wide and rapid development of the so-called "New Psychology;" Translation of the Outlines of the Philosopy of Hermann Lotze, six volumes, Boston, 1885-1892; Outlines of Physiological Psychology, New York and London, 1890; Introduction to Philosophy, An Enquiry after a Rational system of Scientific Principles in their Relation to Ultimate Reality, New York and London, 1890; Psychology, Descriptive and Explanatory, A Treatise of the phenomena, laws and development of the human mental life, New York and London, 1894; The Philosophy of Mind, An Essay on the Metaphysics of Psychology, New York and London, 1895, one of the most notable contributions to philosophy that has vet appeared in America; Philosophy of Knowledge, New York, 1897. The most distinctive feature in Professor Ladd's system of thinking is that he holds a psychological dualism as the necessary postulate and the valid conclusion of all scientific knowledge, while a metaphysical monism is the only satisfactory speculative tenet which will harmonize contradictions and explain the sum-total of experience. Not only is there no contradiction between a psychological dualism and a metaphysical monism, but they are the only views compatible on the one hand with the spiritual and free nature of man, and on the other with the conception of the Absolute as a Self-conscious Spirit, the ontological and the ethical ground of the world.)

### HISTORY.

The department of history was established in 1888. This was made possible through the generosity of Mrs. Samuel Mather, who, in June of that year, gave fifty thousand dollars for the Haydn professorship.

Prior to the endowment of the Haydn chair, little attention had been given to general history as distinguished from classical, though there had been some instruction in that branch ever since 1831. The first courses were given by the department of philosophy. In 1835 Professor Clement Long gave a course on the Constitution of the United States. He based his instructions on Justice Story's Commentaries, which had been published but two years before. This great work of Judge Story, remarkable for its vivid historical sketches, was continued as a text until 1848. In that year it was superseded by the first volume of Kent's Commentaries. Kent was used in the third term of the Senior year. Two other facts belonging to this period should be mentioned, as they seem to indicate a growing interest in historical studies. In 1837 Professor Long offered a new course. This was a series of lectures given to the Sophomores in the third term on "The Object and Method of Historical Study." Two years later, Webster's History of the United States and Worcester's Ancient History were introduced into the Preparatory School.

These courses constituted practically all the historical instruction given until 1860. Little as it was, it compared favorably with that given in most of the better colleges. At this time there were few chairs of history in America. The first distinct endowment for historical instruction was in 1839, when the McLean professorship was founded at Harvard. It should be stated, too, that the first mention of a matriculation examination by the historical department at Harvard was in 1846.

In the spring of 1860 the Rev. Carroll Cutler was called

to the chair of Philosophy and Rhetoric. Professor Cutler was a graduate of Yale and had studied a year in Germany. He continued the course in Kent until 1863. Then it gave place to one in international law, in which Woolsey was the text. At the beginning of his professorship Professor Cutler introduced two new courses. He taught the Seniors Leiber's Civil Liberty and Self-Government, and the Juniors, in the third term, Guizot's History of Civilization in Europe. In 1864 this latter course was transferred to the second term. It was Professor Cutler's aim in his historical teaching "to prepare young men to understand and decide for themselves, in view of what experience has proved, all those political questions which every citizen, ignorantly or intelligently, must help to settle."

The history courses were all required until 1875. In that year "all the studies of the second and third term of the Senior year" were made optional. Only one change occurs between this date and 1888. This was in 1882, when English history became a required study for all Juniors. Green's Short History of the English People was the text used.

Classical history has been taught by the departments of Greek and Latin through almost the entire history of the college. It is announced in the catalogue for 1870-71 that "in the Freshman and Sophomore year special attention is given to Greek and Roman history as auxiliary to the study of the classical authors. In the Freshman class of that year the Roman constitution was studied. In 1882-83 the Greek department offered two courses to the Sophomore class. In the first term Greek history to the end of the Poloponnesian War was studied; in the second, the work was continued to the death of Alexander. Two years later these courses were transferred to the Freshman year. In 1888-89, in connection with both the Greek and Latin de-

<sup>1</sup> Catalogue 1870-71.

partments, a course of one hour a week was offered in the History of Antiquity. This was withdrawn two years later, and at the same time the Latin department announced one on "The Development of the Roman Constitution."

When the Haydn chair was founded, Mr. Edward Gaylord Bourne was appointed instructor, and professor two years later. Professor Bourne graduated at Yale in 1883, and had been instructor in history and lecturer on political science there for the two years immediately prior to his appointment at Adelbert.

During his first year Professor Bourne taught the Middle Ages to the Sophomores, the history of modern Europe to the outbreak of the French Revolution to the Juniors, and the history of Europe since 1789 to the Seniors. These courses were required. In the first and second, instruction was given once a week throughout the year; in the third, twice a week during the second half-year. Two elective courses on the "Political History of the United States from 1789 to 1880" were also offered. These were open to all Seniors and Juniors.

No change appears in the announcement of courses until 1891-92. In this year, in order to prevent the student from "scattering his energies," and to give some opportunity for specialization, all elective studies were "arranged and published in groups." In the first half of the Junior year the student was required to do ten hours of prescribed work and six from the group he had chosen; in the second half-year he was required to do seven hours of prescribed work, the six of his group, and was permitted to choose one "three hour course out of all those offered." In the Senior year he had four hours of prescribed work, the six of his group, and was permitted to elect two three hour The historical and political group arranged at courses. that time consisted of the following courses: American History since 1783, three hours a week, one year; English Constitutional History, three hours a week, one half-year; Modern European History and Politics since 1789, three hours a week, one half-year; Anthropology and International Law, three hours a week, one half-year; American Colonial History, three hours a week, one half-year; English Political History since 1760, three hours a week, one half-year. In the next year an advanced course in political economy was made optional with international law. The only other change made in the "Historical-Political Group" was in 1894. Then, students electing it were required to take "eight full courses in history and economics, of which at least two courses must be in history and two in economics." The remaining four courses might be elected from either history or economics.

Besides the courses of the group, as arranged in 1891-92, Professor Bourne offered three additional ones. The first was the "History of the United States since the Civil War." The other two treated of the political and constitutional history of England to 1760. A new elective was announced in 1894. This was on the history of France from 987 to 1750. In this year, too, the department of economics was established and Professor Bourne was relieved from giving instruction in that subject, which he had done since 1888.

All courses in history were made elective in 1895. Until then two courses had been prescribed; one, an outline of the Middle Ages, which was taken by the Sophomores in the first half-year; the other, the "History of Europe during the Reformation, and of England during the Puritan Revolution," taken in the second half-year by the Juniors. In this year Professor Bourne resigned his professorship to accept one at Yale University. Mr. Edward Vernon Morgan was appointed instructor in his stead. Mr. Morgan was a graduate of Harvard University and had studied at the Universities of Berlin and Oxford. He had charge of the department for three years. During this time two new

courses were offered; one in 1895-96, on the "History of Colonization since 1492," and the other in 1897-98, on the Thirty Years War. The first was offered by Professor Henry E. Bourne of the College for Women. Professor Bourne gave instruction in the history of France and of Europe in the nineteenth century at Adelbert in return for instruction in English and American history at the College for Women by Mr. Morgan. This arrangement for the exchange of courses between the two departments began in 1892 and has continued to the present time.

In 1898, John William Perrin, Professor of History and Politics in Allegheny College, was elected Haydn professor. The department now offers four courses in American, three in English, and six in continental European history.

# POLITICAL AND SOCIAL SCIENCE.

The importance of the Political and Social Sciences received early recognition in Adelbert College (Western The first catalogue which gives any Reserve College). statement of the studies pursued in the college is for the year 1831, and in that list both Political Philosophy and Political Economy are included. More specific information appears in the catalogue for the year 1837, which mentions courses in Natural Law, the Constitution of the United States, and Political Economy. The text books prescribed were Story's Commentaries, and J. B. Say's Political Economy. These courses were offered in the Senior year, and appear to have been required. They were included in the Department of Philosophy. The instruction was not confined to the use of text-books. The Rev. Clement Long. who occupied the chair of Philosophy, declares that textbook instruction fails to awaken the intellectual powers. while lectures are often beyond the miniature capacities of the student, and therefore both are necessary. Certainly

the difficulty in respect to immaturity was much greater in those days, when the students were very much younger than at present.

In 1844 Lieber's Political Ethics was used as a textbook in Government, and Wayland's Political Economy was substituted for Say's. Four years later Kent supplanted Story. These meager details concerning the texts are the only information afforded as to the nature and scope of the work. Political Science and Political Economy were generally given in the second and third terms of the Senior year and received, apparently, only a modest portion of the International Law appears as a distinct subject in 1863, with Woolsey's work as a text, but it is to be presumed that it received some consideration before in the study of Kent's Commentaries. A distinct advance was made in the study of Political Economy in the adoption of Apparently there was some reduc-Mills' work as a text. tion in the time devoted to these branches in 1865, since they were all crowded into the last term of the Senior year. At that time about four courses were taken by the Senior class, and these subjects seem to have occupied about onehalf of their time.

President Cutler held the chair of Philosophy and is perhaps responsible for the following statement regarding that work, which appeared in several catalogues:

"History and Political Science in its various branches are taught with the purpose to prepare young men to understand and decide for themselves, in view of what experience has proved, all those political questions which every citizen, ignorantly or intelligently, must help to decide."

A course in Municipal Law was introduced in 1870, but it does not appear whether it was public or private law; after a couple of years it was dropped from the curriculum.

In 1875 Political Economy was made a required study for the Senior year in the second and third terms, it was excluded, therefore, from the operation of the elective principle which seems to have been introduced at that time. History and Political Science, on the other hand, were made optional. This distinction does not appear in the following year, and in 1882 Political Economy was made optional and put in the second half of the year. The study of the Constitution of the United States was pursued in conjunction with Ethics in 1885, and for several years thereafter. 1887 the classical department contributed to the study of Political Science in offering a reading course in the Institutes of Justinian, with references to the Digest and Codex, which was amplified, later, by the use of the treatises of Hadley and Morey. Only those intending to study law were deemed eligible. In 1889 both International Law and the study of the Constitution of the United States disappear from the curriculum.

In this same year an important change occurred in the establishment of a chair of History, of which the first occupant was Professor E. G. Bourne. Political Science and Political Economy were transferred from the Department of Philosophy to the Department of History. The latter, further, was made *elective*, and was allotted two hours a week in the second term of the Senior year. Professor Bourne revived the study of Political Science in giving a course on the Government of the United States.

Political Economy was made a required study again in 1891, and given three hours a week in the second term of the Senior year. Professor Curtis, of the Department of Philosophy, offered courses in this same year in International Law, Anthropology and Sociology. A further advance was made in the opportunities for the study of Economics in 1893 by the addition of an "advanced course" in Public Finance.

In 1894 a distinct Department of Political and Social Science was established, Mr. S. F. Weston being appointed

Associate Professor. Since the Department of History gave some opportunities for the study of Political Science, his work was confined chiefly to Economics. Six courses, each occupying three hours for a half-year, were offered, of which only the first, an elementary course, was required. According to the system then in effect, however, Economics might be elected in the Junior year, so that it was possible for a pupil to take them all. These courses covered a good many of the most important aspects of the subject with considerable thoroughness, and made it possible, for the first time, to obtain something more than a brief acquaintance with general theories.

All the courses in Political Economy were made elective in 1895, and their number was increased. Professor Weston also offered one course in Civil Government, but other opportunities existed for the study of Political Science in the Department of History, in charge of Professor Perrin, which, to the treatment of Political and Constitutional History, added some studies in Constitutional Law. Professor Curtis, however, dropped the course which he had formerly given in International Law.

The Department of Political and Social Science was continued on this basis to the present time, with some minor changes in the courses offered. In 1900, on Professor Weston's retirement, the work was undertaken by the present head of the department. A review of its history shows that the importance of these subjects was recognized at the beginning, and their needs provided for in the manner, and according to the standards of the time, having regard to the conditions of growth of the College.

### MATHEMATICS.

The first professors appointed in Western Reserve College were: Rev. Charles Backus Storrs to the chair of Sacred Theology in 1828, and one year later, Mr. Elizur Wright, a graduate of Yale College, to the chair of Mathematics and Natural Philosophy, and Rev. Rufus Nutting, a graduate of Dartmouth College, to the chair of Languages.

The entrance requirement in Mathematics was then "Vulgar Arithmetic." The college course extended from the second term of Freshman year to the end of Sophomore year, and consisted of Arithmetic reviewed, Day's Algebra completed, Playfair's Euclid, Applications of Algebra to Geometry, and Day's Mathematics. Professor Wright resigned in 1833 to engage in anti-slavery journalism. He also became a distinguished Actuary.

The teaching was then done by tutor Walker of the class of 1831, until 1835, when Mr Jarvis Gregg, a graduate of Dartmouth College, accepted an appointment to the chair. The review of Arithmetic was discontinued and the course of study was extended to the middle of the first term of Junior year. Before the end of the year Professor Gregg was transferred to the chair of Homiletics and Pastoral Theology. He died within a year from his first appointment. His death was considered a serious loss to the college.

Mr. Elias Loomis, a graduate of Yale College, was immediately appointed to fill the chair thus made vacant. The catalogue of 1836-7 announced, "The Professor of Mathematics and Natural Philosophy is now absent on a tour to Europe for the purpose of purchasing philosophical apparatus and books for the library, and preparing himself for instruction. In the meantime his place is filled by a competent teacher." In the next catalogue appeared the statement, "During the past year \$1,000 were expended for the purchase of books for the mathematical department."

Arithmetic was the only entrance requirement until 1857-8. The catalogue of 1841-2 contained this statement, "Some previous acquaintance with Algebra and Geometry will greatly facilitate the student's progress, but is not indispensable." This statement appeared in many successive catalogues.

The Department of Mathematics offered the following programme of studies for the year 1837-8:

### FRESHMAN YEAR.

First term, Day's Algebra, 200 pages and reviewed.

Second "Day's Algebra finished (126 pages, including Applications of Algebra to Geometry.)
Playfair's Euclid, first book.

Third "Playfair's Euclid, six books and reviewed.

## SOPHOMORE YEAR.

First term, Playfair's Euclid, three books of supplement.

Day's Mathematics—Plane Trigonometry.

Second "Day's Mathematics—Mensuration of Superficies and Solids, Isoperimetry, Mensuration of heights and distances, Navigation and Surveying.

Third "Bridge's Conic Sections, Playfair's Spherical Geometry and Trigonometry.

JUNIOR YEAR.

First term, Differential and Integral Calculus.

Then came courses in Philosophy and Astronomy, with "Calculation of Eclipses" in the third term of Senior year.

Mr. Loomis later substituted Davies' Analytic Geometry for Conic Sections.

The catalogue of 1839-40 contained the statement "Instruction in this department is given solely by recitation and such incidental explanations as the progress of the student seems to require until the third term of Junior year"—the termination of the period of mathematical instruction.

Professor Loomis resigned in 1844 to accept a call to the chair of Mathematics and Physics at the University of New York. He went, in 1860, to a similar chair at Yale College. He was the author of a remarkable series of text-books on Mathematics and related subjects.

His immediate successor here was Mr. James Nooney, a graduate of Yale College. This chair became vacant again in 1848, and the college being in financial straits, the teaching in Mathematics was done by tutors until 1853, as follows: Halbert E. Paine, 1848-9; Ebenezer Bushnell, 1849-50; Erastus Chester, 1850-1; Mr. Chester and Charles W. Palmer (father of Professor Palmer, now at Yale University), 1851-2; Lorenzo Gates, 1852-3. During this tutorial period select branches of Mathematics were offered in a graduate department, which seems to have been in existence for a few years only. Calculus and Analytical Geometry were for a few years made Senior studies.

Rev. Alfred Emerson, a graduate of Yale College, held the Professorship from 1853-4 to April, 1856, when he resigned, and Mr. Charles A. Young, a graduate of Dartmouth College, succeeded him in the January following. In 1857-8 Algebra to Equations of the second degree was added to the requirement for admission. In the next year, the required course in Calculus was for the first time extended through two terms. In 1865-6 the name of the chair was changed to Professor of Mathematics and Perkins Professor of Natural Philosophy.

Professor Young resigned, February, 1866, to accept the chair of Physics and Astronomy at Dartmouth College, a chair which had been filled by his father and grandfather before him. While in this position he did the work in Astronomy, which gave him an international reputation. Mr. Young is now Professor of Astronomy at Princeton niversity. Mr. Allan C. Barrows, of the class of 1861, Professor Young's successor.

In 1866-7 Differential Calculus was made an optional his was the first appearance of the word optional

in the curriculum. A small portion of the Calculus was required in the second term of Sophomore year for six years longer. The study of Mechanics was now begun for the first time in the third term of Sophomore year. Geometry was again put before Algebra in the curriculum—the sixth and last interchange of those subjects, from the beginning.

At the close of the year 1869-70 Professor Barrows was transferred to a chair of Latin and English Literature, and Mr. Charles J. Smith, of the class of 1870, immediately succeeded him. Professor Barrows now fills the chair of English Literature at Ohio State University.

In 1870-71 Equations of the second degree, and about 1874-5 three books of Geometry were added to the requirements for admission to the Freshman class. Practical Surveying was given in 1872-3, and for a few years longer. To what extent it had been taught previously is not certainly known. Professor Morley taught the Mathematics of Freshman year from 1870-1 to 1881-2. The work of the department involved a large amount of recitation and lecture room instruction in Physics and Astronomy, and, in alternate years, an additional course of experimental lectures in Physics at Lake Erie Seminary, now College. Also considerable attention was given each year to Practical Astronomy.

In 1882-3 Mathematics became a separate department, and Professor Smith was appointed to that chair.

The entrance requirements for admission to the Freshman class were increased as follows: in 1883-4, to four books of Plane Geometry; in 1884-5, to the whole of Plane Geometry; in 1885-6, to Algebra, through Proportion, Progressions, and the Bi-nomial Theorem; and in 1888-9, to Plane and Solid Geometry. At the latter date the time honored period of required instruction was considerably shortened, from about 270 hours to about 180 hours, and so as to end with the middle of Sophomore year (three terms

a year having given place to two terms of equal length upon the removal of the college to Cleveland). In 1882-3, Classical students were required to choose for the first half of Junior year either Greek or Calculus. The next year Latin was added to this group. Calculus was also an elective study for the first half of Senior year. In 1885-6 this scheme of alternative courses was temporarily abolished, and Calculus continued to be taught to elective classes in two half-year courses.

Elective courses were added as follows: in 1889-90, Advanced Analytic Geometry; in 1891-2, The Theory of Equations; in 1894-5, Quarternions; in 1897-8, Differential Equations, and Practical Surveying.

The group system, introduced into the curriculum in 1891-2, affected the instruction in Mathematics very little.

From 1892-3 to 1895-6, Classical students were again required to take either Greek, Latin, or Mathematics in the second half of Sophomore year.

The revolutionary revision of the curriculum in 1895-6 reduced the required work in Mathematics to Plane Trigonometry and Analytic Geometry, eighty hours, all in the Freshman year. Elective courses are given through the remaining years.

This department gave all the instruction in Mathematics at the Cleveland College for Women during the first four years of its existence—1888-9 to 1891-2.

The department, since its separation from that of Physics and Astronomy, first enjoyed the advantage of an instructor in 1897-8, when Mr. John Dickerman was appointed to that position, which he still holds.

#### CHEMISTRY.

Information about the teaching of Chemistry in the early years of this College is scanty. The schedule of instruction for 1835 shows that Elementary Chemistry was taught in the second term of the Junior year. This instruction did not begin till certain mathematical studies had been completed, and the fraction of the term remaining was divided between Chemistry and Astronomy. The instruction was perhaps given by Professor Jarvis Gregg, whose chair was that of Mathematics and Natural Philosophy. In the catalogues of 1837 and of 1838 a Professorship of Chemistry, Mineralogy and Geology was mentioned, but no appointment was made at first. During these years, Elias Loomis was Professor of Mathematics and Natural Philosophy, and perhaps gave the instruction in Chemistry which the schedule mentions, whose amount was as before.

Samuel St. John was appointed Professor of Chemistry, Mineralogy and Natural History in time to be inaugurated in the summer of 1838; but he gave no instruction in the academic year then beginning. It had been arranged that he should spend some part of this year in the laboratory of Professor Silliman. Chemical apparatus and a mineralogical and geological collection were purchased during this vear of preparation. When Professor St. John began his work in 1839, the teaching of Chemistry was for the first time, in our college, put into the hands of a professional During some four years, instruction in this scichemist. ence was begun in the first term of the Senior year, and completed by a review with experimental lectures in the second term. The instruction during the first term seems to have consisted of recitations from Turner's Elements of Chemistry. After finishing Chemistry, the same teacher taught in succession, Crystallography, Mineralogy, Conchology, Geology, Botany, and Zoology. From 1843 instruction in Chemistry was completed in the first term of the

Senior year. In 1847, Chemistry was put one year earlier in the course, and the amount of instruction seems to have been lessened, for it divided the term with Mineralogy and Geology.

Professor St. John resigned his professorship in 1852, and it does not appear by whom Chemistry was taught for the next three years. In 1855, Rev. Paul Ansel Chadbourne, afterwards Professor of Natural History in, and still later president of, Williams College, was lecturer on Chemistry and Natural History, and instruction in Chemistry, Geology, and Mineralogy, was given by recitations and lectures during the first term of the Senior year. In 1858, Dr. J. Lang Cassels, who had for many years been connected with the Medical Department of the College, was named lecturer on Chemistry and Natural History, and instruction in Chemistry was now given during a whole term in the Senior year, sometimes the first and sometimes the second.

In January, 1869, Edward Williams Morley was made Hurlbut Professor of Chemistry and Natural History. that time the College possessed but two pieces of the apparatus which had been procured by earlier professors of Chemistry. One was an alcohol lamp for heating tubes, which seemed not to have been much used, and which was of no use after the introduction of gasoline gas into the laboratory; the other was a Wallaston's logarithmic slide rule for chemical calculations, which was useless on account of changes in accepted atomic weights due to repeated new de-Besides these were only some bottles and terminations. retorts procured in 1868 by a professor in another chair who had some thought of exchanging his own professorship for that of Chemistry, and who practiced chemical manipulation in order to determine whether to make this exchange. Mr. Morley was allowed a sum sufficient slowly to establish a laboratory enabling him to teach Chemistry by means of recitations and lectures coupled with laboratory practice by every student in Chemistry. Such laboratory practice has since 1869 been required of every student in Chemistry except in one or two cases of physical disability.

In 1869, all studies but one were required, and there was no opportunity to teach more Chemistry than could be put into the first term of the Senior year. But from 1873, other courses have been offered as optional; the course always chosen by a good part of the class being one in qualitative or in determinative analysis; the latter subject was taught from the chemical point of view. Other subjects were taught if desired, as, for instance, Physiological Chemistry. From 1882, a course in Organic Chemistry has been regularly offered, and quantitative analysis has been taught, if desired; so that, from 1883, elementary chemistry, organic chemistry, qualitative analysis and quantitative analysis have constituted the course in Chemistry offered to students in this college.

Beginning with 1884, the chemistry of the non-metallic elements was taught in the first term of the Junior year, and that of the metallic elements in the first term of the Senior year; while organic chemistry was also made to take two terms of study from about 1894.

In 1895, Mr. Morley's health was such that he had to be absent a year, and the instruction of that year was given by Mr. Hippolyte Gruener. It was during this year that a new course in Chemistry was arranged for the Freshmen entering the Latin-Scientific course. In the next year, when two Freshman classes and two Sophomore classes were requiring altogether four years of instruction in the new Latin-Scientific course in Chemistry, in addition to the instruction formerly required by the two colleges, two instructors had their hands fairly well filled. In 1898, a third instructor in Chemistry, Mr. Olin F. Tower, was provided, so that the department is now well manned to meet the

requirements made on it by the wants of our students at present.

It may be interesting to recall, that when Mr. Morley came to the College in 1869, with a fixed course throughout four years, the number of the teachers and the time allowed for Chemistry and Geology were such, that in order that the teacher of Chemistry should have about as much teaching to do as the others of the Faculty, he was required to teach, in addition to the sciences of his own department, all the mathematics of the Freshman year, and that this arrangement continued till the removal of the College to Cleveland, in 1882. The work which then required one-half of the time of one man has now been so expanded as to require the whole time of a professor of Geology and of three teachers of Chemistry.

#### PHYSICS AND ASTRONOMY.

For two or three years after the founding of Western Reserve College, all instruction was given by one or two men. The actual formation of a Faculty and of somewhat definite branches of instruction took place in 1826, and in 1829 the department of Mathematics and Natural Philosophy had its beginning with the appointment of Mr. Elizur Wright, a member of the Board of Trustees, and an earnest promoter of the interests of the College since its inception in 1822. Mr. Wright was a graduate of Yale and a mathematician of much ability. He held the position until 1833, resigning in the midst of the anti-slavery agitation of that period. His devotion to the abolition movement, and the later employment of his mathematical talent in the service of life-insurance, are matters of general knowledge.

For three years after his resignation, instruction was given successively by Mr. Ralph M. Walker and by Mr. Jarvis Gregg. An appointment was then made which

proved a very important and fortunate one for the College, that of Elias Loomis, a tutor at Yale.

Mr. Loomis was graduated at Yale in 1830, and after three years spent in teaching in secondary schools and in theological study at Andover was called back as an instructor. Yale was at that time a notable scientific center, and Loomis represented the best training of his day.

As in the case thirty years before of Benjamin Silliman, his own teacher at Yale, Mr. Loomis was given leave of absence immediately upon his appointment, and went to Paris, studying there with Arago, Billet, Poisson, Pouillet, and others. He was also entrusted with the purchase of books and of a relatively large amount of apparatus for the study of Physics and Astronomy.

The expenditure is surprisingly large, whether we consider the meager resources of the College at that time, or the confidence reposed in a comparatively young and untried man.

The confidence was well bestowed. The books purchased belong to the classics of the subjects involved, forming an admirable foundation for a scientific library, while the instruments, in Loomis's hands, made the name of Hudson everywhere known among men of science. The astronomical clock is still giving excellent service, and a portion of the physical apparatus, so judiciously chosen, is yet in regular use.

The College curriculum at once shows Loomis's strong hand, the time given to Natural Philosophy increasing by one-half, and embracing now two terms in the Junior year, and one in the Senior. The general character of the course at that time may be best shown by an extract from Professor Loomis's statement in the catalogue of 1839.

"Instruction in this department is given solely by recitations, and such incidental experiments as the progress of the pupil seems to require, until the third term of Junior year. A course of lectures is then commenced, the design of which is to furnish experimental illustration and to supply the deficiencies of the text-books. It embraces the general principles of Mechanics, Hydrostatics and Pneumatics, the theory of Musical Vibrations, a full exhibition of the phenomena of polarized and unpolarized Light; the principles of Electricity, Magnetism, Galvanism, and Electromagnetism, and the most important facts in Meteorology. The whole is embraced in not less than fifty lectures. ratus recently purchased in London and Paris at an expense of over four thousand dollars furnishes ample means of illustration. Theological students may have access to these lectures free of expense. The Astronomical Observatory recently erected (it was built in 1838 at a cost of about one thousand dollars) contains an equatorial telescope by Simms of London, with a focal length of five and one-half feet and an aperture of four inches. . . . . . The observatory contains also a transit circle by the same maker. It has a telescope of thirty inches' focus and an aperture of nearly three inches. The circle is eighteen inches in diameter, graduated on platina to five seconds, and having three fixed microscopes, each reading to single seconds. clock was made by Molineux, of London, has a mercurial pendulum, and is found to be very little affected by temper-A part of the regular instruction of the Senior class in Astronomy consists in an explanation of the construction and use of these instruments, and an exhibition through the telescope of the most prominent objects in the These courses, practically unchanged, run through Professor Loomis's incumbency.

While thus fully employed in teaching, Loomis found time for a large amount of original observation. When a tutor at Yale he had already planned and carried out a laborious set of observations on terrestrial magnetism, and work in this subject, with the aid of the excellent magnetic instruments brought by him from Europe, was steadily prosecuted at Hudson, culminating in the publication of a magnetic chart of the United States, the first ever made in this country. His own contributions to this work included observation of the magnetic dip in thirteen different States.

Professor Loomis began also at Hudson the studies in Meteorology which formed perhaps the most important work of his life. Besides regular daily observations he investigated carefully the circumstances attending two great storms, one in 1836, one in 1842, and in the study of the second devised the method of representing pressure conditions by isobaric lines which is now universally employed. It is difficult to overestimate the importance of this device. Professor H. A. Newton remarks that the paper containing this method stands forth as the most important contribution to the "New Meteorology."

The paper, and the discussions rising about it, were important factors in the movement which led to the establishment of the Government weather service.

In Astronomy, the work of Professor Loomis, while less striking, ranks among the best work done in the country at the time, antedating as it did the great Observatories.

In 1844 Professor Loomis was called to the University of New York, and Mr. James Nooney took his place, resigning at the end of three years.

In 1847, a course of instruction for graduate students was announced, including the branches of Mathematics, Natural Philosophy, and Astronomy. All the students enrolled in the course, however, were members of the Theological School, and it does not definitely appear that they availed themselves of the opportunities in Science.

For some years now the department suffered a serious decline. On Mr. Nooney's resignation, in 1847, the graduate courses offered in the department were dropped. The observatory apparently fell into disuse, and in 1854 all mention

of astronomical instruments in the catalogue ceases. Instruction during this period was given for a time by Professor St. John, of the Department of Chemistry, then was committed by the trustees to the faculty in general, with what result does not appear, except that in 1853 it was represented to the board of trustees, that the philosophical apparatus was in a perilous condition, and a committee was appointed from trustees, faculty and alumni, to "put the same in order for use and preservation." In the same year, with much misgiving and opposition on account of financial conditions, Rev. Alfred Emerson was appointed to the vacant professorship, serving three years, when he was followed by Charles A. Young.

In this appointment there were brought to the position excellent training and a predisposition to the work which might be called hereditary. Ira Young, his father, and Ebenezer Adams, his mother's father, had held the chair of Natural Philosophy and Astronomy in Dartmouth College where Charles was graduated in 1853. For three years he taught Classics at Andover Academy, and was a student at Andover Theological Seminary when called to the position From his own account, in a letter, of the conat Hudson. ditions at Western Reserve College, it is plain that there had been little addition to the collections made by Loomis nearly twenty years before. "All the old optical and electrical apparatus," he says, "was at Hudson when I went there in 1856... I remember distinctly, among the expensive pieces, the electrical machine, air pump, heliostat, and Atwood's machine . . . The whole collection was an extremely good one for that time-few, if any, so good west of the Alleghanies." Of books, he remarks, there were no new ones, and no appropriations for books to speak He depended mostly on his own collection, though there were some good books in the college library.

Professor Young was mechanically ingenious, and sup-

plemented the rather narrow resources of his laboratory by his own constructive skill. Very little of the work which has made his name famous was done during his stay in Hudson. He devoted himself chiefly to his teaching. In summer, during part of his stay, he worked on the Government survey of the Great Lakes.

The courses in Astronomy were now rehabilitated, and in 1860 it is announced that "during the past year the astronomical observatory and its instruments have been thoroughly repaired and refitted, and are now in good working order. They will be constantly used to illustrate and exhibit to the classes the more remarkable astronomical phenomena."

In 1865 Professor Young received the title of Professor of Mathematics and Perkins Professor of Natural Philosophy and Astronomy. In the following year he returned to Dartmouth to fill the chair formerly held by his father, and Mr. Allan C. Barrows was appointed to his place. The course in Physics had now again become firmly established, and with small alterations in division of time or text-book, runs substantially without change for a dozen years. Notice of increase in apparatus and equipment forms a regular part of the catalogue announcements during this time.

In 1870 Mr. Barrows was transferred to the Department of Latin, and Mr. Charles J. Smith became Professor of Mathematics and Physics. Six years later elective courses began to be offered in Physics and Astronomy in the second and third terms of Senior year.

In 1876 another notable name appears on the faculty list with the appointment of John N. Stockwell as lecturer on Practical and Physical Astronomy, a position held until 1882.

During this year, with the removal of the college to Cleveland, the curriculum was remodeled, and the chair of Mathematics and Physics divided, Professor Smith taking the Department of Mathematics, while Spencer H. Freeman was appointed Perkins Professor of Physics and Astronomy. Professor Freeman was an alumnus of the University of Rochester, and a graduate student of Johns Hopkins University. A well equipped physicist, an excellent and enthusiastic teacher, a man of attractive address and sterling character, his untimely death, in 1885, cut short a career of much usefulness and promise. During the years 1884-86 Mr. Peter Neff was associated with the work of the department, with the title of Fellow in Physics, giving assistance where needed, and carrying on some private work.

In 1886 Mr. Frank P. Whitman was called to the chair from a similar position in the Rensselaer Polytechnic Institute of Troy, N. Y. The work was continued on the same general lines, with a gradual increase of laboratory facilities. The founding of the College for Women, and the rapid growth of Adelbert College in 1888 and the years immediately following, made the work in this department, as in all others, very heavy. The rooms occupied having become entirely inadequate, the Physical Laboratory was built and furnished, in 1894, through the kindness of Mr. Samuel Mather. In the same year Mr. Harry W. Woodward became laboratory assistant, and in 1887 he was made instructor in Physics.

In 1899 Messrs. W. R. Warner and Ambrose Swasey enriched the general resources of the department, and especially of the work in Astronomy, by the gift of a telescope of ten and one-half inches' aperture, with the necessary dome.

The curriculum had undergone, during these last years, some important changes. Since 1882 the study of Elementary Physics had been confined to Junior year. In 1887 Astronomy was made an elective study. During the following years the course in General Physics was gradually

moved back until, in 1896, it was made one of an elective group of studies, running through Sophoniore year. At the same time the courses in Advanced Physics were correspondingly enlarged and extended, bringing the work of the department to the position which it holds at the present time.

### BIOLOGY.

I.

Fifty years ago the study of life—in the sense of living things of the globe and their varied relations to the rest of nature—was either unknown or very imperfectly represented in the curriculum of the American College student. At the beginning of the 20th century the biological sciences are cultivated in greater or less measure at every reputable University and College in the world. Many possess specially designed and costly laboratories, devoted to research or teaching, and biological stations have sprung up on the coasts of the great oceans, and on many of the inland seas and lakes. Various States of both the old and new worlds have established biological surveys of their own immediate fauna and flora, and have sent explorers equipped with every resource which science and human ingenuity can supply into remote regions of the seas and lands. more obvious practical results of the study of life phenomena have also been utilized in agriculture, medicine, and sanitation, and in the propagation of animals useful for food. These facts are in accord with the slow differentiation of the older natural history of the 17th and 18th centuries, and the comparatively late development of the purely biological sciences.

II.

Western Reserve College, during the first 62 years of its history, maintained the attitude toward those sciences dealing with the living world, which commonly prevailed in

American institutions of similar aim. A chair of Natural History—in the Linnaean sense of Physical Geography, Geology, Mineralogy, Zoology and Botany—united with Chemistry, was maintained from an early period, though not always under this precise title.

The teaching of the biological sciences in Western Reserve College, and later in Adelbert College and the College for Women, may be divided into two periods:
(1) 1826-1888, from the foundation to the introduction of special laboratories in these subjects; and (2) from 1888 to the present time.

The first period calls for some notice in this narrative, although the personnel of the instruction will doubtless receive fuller treatment at other hands.

Anatomy and Physiology are announced among the studies of the third term of the Junior year, under the caption "Mathematics and Physical Science" in the catalogue for 1835-37. These subjects were doubtless treated in short courses of lectures and recitations, by Jarvis Gregg (Professor of Mathematics and Natural Philosophy, 1835-36). These dropped out the following year, and in 1839 Botany and Zoology appeared in their stead, being taught by Samuel St. John, whose term of instruction lasted from 1838 to 1852.

In the year 1840 the third term of the Senior year was devoted to Bakewell's Geology, Botany (Beck's text-book apparently being in use), Smellie's Philosophy of Natural History, and Zoology. It is interesting to find, among the Senior studies of the second term, "Conchology," a name rarely heard in these days, when the study of the Molluscks is mainly directed to their anatomy and development, and forms a part of the general subject matter of Zoology. At this time, however, Conchology, or the descriptive study of Shells, had a distinct vogue, as the numerous popular handbooks dating from about this period, amply testify. Pos-

sibly the least important, but the most interesting to book collectors, is the Conchology of Edgar A. Poe, one of the most singular pieces of hack-work extant, but evidently published in answer to a popular demand. This order of studies lasted, with minor changes, until 1847.

In 1848, Agassiz and Gould's Zoology superseded Conchology, which in 1850 was transferred to the last term of the Senior year, when students also studied Botany, Anatomy, Physiology, and—possibly as an antidote to so much science—Volume I of Kent's Commentaries.

Paul Ansel Chadbourne, professor in Williams College, and later its president, gave instruction in Botany and Zoology from 1852-55.

In 1855-56 instruction in "Natural History" had become reduced to lectures on Botany given by Dr. J. Lang Cassels, lecturer on Chemistry and Natural History at Hudson, and Professor of Chemistry and Botany in the Medical College at Cleveland. For a number of years from this time Natural History embraced lectures in Geology and Mineralogy, in addition to Botany, and in 1869-70 this subject, illustrated by one of Asa Gray's earliest text-books. was transferred to the last term of the Junior year. At this time Edward Williams Morley became Hurlbut Professor of Natural History and Chemistry, and was soon giving lectures to Seniors, and later to Juniors, in Botany, and instructing in the use of the microscope (1875-76), as well as developing his own special field. For a number of years from 1869 onwards Mr. C. M. Read, of the class of 1848, lectured on Zoology.

In 1879-80 lectures were announced "on some of those questions in Biology which are attracting the attention of students in this field," and from 1871-87 courses of lectures were given annually by Professor Morley, on the general subject of Evolution, one series of which, pertaining to organisms, was entitled, "Have Species been derived from other Species by Natural Law?"

After the removal of the College to Cleveland, in 1882, little instruction was given in biological subjects apart from the exercises already mentioned, certain lectures upon Physiology and Hygiene, and the instruction of a few special students in the use of the microscope as an instrument of research.

## III.

In 1888 an instructor in Biology was appointed and work was begun with a class of four students at the newly opened College for Women. Two rooms on the first floor of the main building of Adelbert College were turned into laboratories, and continued to serve this purpose until June, 1899. The large corner room was used as a general laboratory, mainly for elementary students, while the smaller one adjoining it combined the various functions of a private office, reference library, and laboratory.

An elementary course, embracing the study of a few simple types of animals and plants, was first given (as a required study for the second half of Junior year), followed by work in Animal Physiology and Histology, and in Morphology. In 1893-4 five elective courses were offered, including Morphological Botany and Embryology of Vertebrates. In 1896-97 the elementary course was transferred to the latter half of the Sophomore year, and in 1898-99 courses in Vertebrate Anatomy and General Physiology were added.

In 1891-92 Dr. J. P. Sawyer began a series of lectures to Freshmen on Hygiene, which were discontinued in 1896. Since 1895 Seniors in Adelbert College have been allowed to pursue certain courses at the Medical College, for which they receive credit at Adelbert College, and are able to shorten their course for the professional degree.

In 1895 the small laboratory rooms were becoming crowded by the slowly growing body of students, and plans for a specially designed laboratory building, which had been considered as early as 1892, were drawn and discussed. In 1891 a somewhat detailed sketch for a working laboratory and museum had been presented to the University Senate.

After examining many of the most important American and European laboratories, the plans which had undergone revision for a number of years were placed in an architect's hands.

Ground for the laboratory was broken in 1897, and the foundations were then laid and left to settle during the following winter. Resuming building operations in March, 1898, the work of construction went on slowly but uninterruptedly until completion, in the spring of 1899. The laboratory was dedicated on June 13th of that year, at which the principal address was given by Professor William Keith Brooks, of the Johns Hopkins University, on "Scientific Laboratories," afterwards published in the University Bulletin for October, 1899."

The building was first occupied in September, 1899, and though not fully equipped even at the present time, it has proved itself well fitted for every purpose for which it was designed. An illustrated account of this building was published in 1900.\*

The number of students using the laboratory during the second half of 1901 was 111, embracing 3 graduate students, 50 students from the College for Women, and 58 from Adelbert College.

## IV.

The Zoological collections, formerly out of easy reach on the top floor of the main college building, are now distributed in a number of halls and rooms of the laboratory, where they are easily accessible to all workers. They contain upwards of 10,000 zoological and botanical speci-

<sup>\*</sup> Journal of Applied Microscopy, Vol. III, No. 8, pp. 949-55.

mens, of which 760 are mounted birds, and 240 mounted mammals and vertebrate skeletons.

In 1894 the collections of the Kirtland Academy of Natural Sciences, which for many years had occupied rooms in the old Case Block, were deposited in the museum of Adelbert College, and at the same time the Winslow collection of American birds, which had been incorporated with the former, was given to the College by Mrs. R. K. Winslow.

Zoological collections have also been added from the Bahama Islands, the Woods Holl region on Vineyard Sound, and in 1899 by Dr. Griffin, at Jamaica. More recently a considerable number of mounted birds and mammals have been deposited by Mrs. R. K. Winslow and Mrs. Caroline Cutter.

#### V.

The reference collection of books, a part of the Main Hatch Library, contains 700 volumes and bound periodicals, in addition to the library of the late Dr. J. P. Kirtland, of which the College was made the custodian in October, 1900, by Mrs. Caroline Cutter. This collection embraces 2,300 volumes on zoology, botany, horticulture, geology, travel and exploration, biography, history, and general literature. About 700 volumes deal with the biological sciences.

#### VI.

In 1888 Francis Hobart Herrick was appointed to an instructorship in Biology, and to a professorship in 1891. An inaugural address, entitled "Biology: A Sketch of its History," was given April 20, 1891, and published by the University. The following persons have also been appointed to instructorships: Nathan Russell Harrington, 1898-99, who died in the Sudan, July 26, 1899, while leading the Second Seuff Zoological Expedition sent by the Columbia University to study the fauna of the Nile valley, and es-

pecially to secure materials for a life-history of *Polypterus bichir* of the Nile and other African rivers, one of the most ancient types of living fishes; Edmond Laurence Griffin, Ph. D., fellow of the Johns Hopkins University, 1900. (The last two appointed at the College for Women). The following have acted as assistants: Fred Clayton Waite, A. B., 1893-95; Herbert Tetlow, B. L., 1895-98; Carl Byron James, B. S., 1898—; Joseph Ralph Watson, M. A., 1899-1900.

## VII.

The following works are based upon researches carried on in the biological laboratory of this University, with the exceptions noted below, from 1888 to 1901:

#### F. H. HERRICK.

The Development of the Compound Eye of the Alpheus.

—Zool. Anzeiger, No. 303, pp. 164-69, Figs. 1-5, 1889.

Papers on the Embryology, Larval Stages, Reproductive Organs, Cement Glands, and Habits of the American Lobster have appeared in the Johns Hopkins University Circulars, Nos. 80, 88, 106, 1890-1893, and in the Zoologischer Anzeiger, Nos. 361-62 for 1891.

Biology: A Sketch of its History, Inaugural Address, Western Reserve University, pp. 1-33. Published by the University, Cleveland, 1891.

Podopsis a Larva of Stenopus.—Johns Hopkins University Circulars, No. 106, 1893.

Microscopical Examination of Wood from the Buried Forest, Muir Inlet, Alaska.—The National Geographic Magazine, Vol. IV, pp. 75-78, Figs. 4-5, 1892.

On the Teaching of Biology.—Science, Vol. XXI, pp. 220-21, 1893.

Hailstones at Cleveland, Ohio.—Nature, Vol. L, pp. 173, Figs. 1-2, 1894.

The Lobster.—Johnson's Universal Cyclopaedia, 5th Ed., 1894.

Movements of the Nucleolus through the Action of Gravity.—Anatomischer Anzeiger, Vol. X, pp. 337-40, Figs. 1-4, 1895.

Alpheus: A Study in the Development of Crustacea (Being Chapter V of the fourth memoir of Vol. V of Proc. of Nat. Acad. of Sciences, entitled "The Embryology and Metamorphosis of the Macroura," by W. K. Brooks and F. H. Herrick), pp. 370-463, and with 38 plates.—Washington, 1892. (This represents work prosecuted mainly at the Johns Hopkins University).

The Habits and Development of the Lobster and their bearing upon its Artificial Propagation. Presented to the World's Fisheries Congress, Chicago, 1893.—Bull. U. S. Fish Commission for 1893, pp. 413-17. Washington, 1894.

The American Lobster: A Study of its Habits and Development.—Bull. U. S. Fish Commission, pp 1-252, 64 plates, Washington, 1895. (The materials for this and preliminary studies were obtained while working at U. S. Fish Commission Laboratory, Woods Holl, Mass.) Abnormal Hickory Nuts.—American Journal of Science, Vol. II, pp. 258-62, Figs. 1-12, and Pl. V, 1896.

Laboratory Notes in General Biology, pp. 1-104, Cleveland, 1897.

Abdominal Pregnancy and Histolysis of the Foetus.— University Bulletin, Vol. I, No. 2, pp. 69-71, 1898.

Protection of the Lobster Fishery.—Proc. Nat. Fisheries Congress, and Bull. U. S. Fish Commission, Washington, 1898.

Ovum in Ovo.—American Naturalist, Vol. XXXIII, pp. 409-14, Figs. 1-3, 1899.

Haematococcus.—Science, Vol. IX, pp. 319-320, 1899. University Bulletin, Vol. II, No. 2, pp. 87-96, 1899.

Care of Nest and Young.—The Auk, Vol. XVII, pp. 100-102, Pl. II, III, 1900.

The Home Life of Wild Birds - A New Method of Bird Study and Bird Photography. With 141 original illustrations from Nature by the Author, G. P. Putnam's Sons, New York and London, 1901.

CARL B. JAMES.

Notes on the Presence of Amoebae in the Cells of Spirogyra.—University Bulletin, No. 2, pp. 67-8, 1898.

Dr. L. B. Griffin is engaged upon problems in the development and anatomy of Mollusks; C. B. James is working upon the Embryology of the Scorpion, and anatomy of tegumental organs in Crustalla. J. R. Watson has worked on the general Natural History and Development of the Crayfishes.

#### GEOLOGY.

In the college catalogue for 1831-32, the earliest one available, it is stated that lectures are to be delivered on geology, among other subjects, but by whom is not announced, nor is it at all certain that the lectures were given. In the next catalogue to be found, that of 1835-36, there is no mention of the subject whatever. But in the two following years a chair of chemistry, mineralogy and geology is announced, though no instruction in these subjects was given. Then the chair was filled by the appointment of Prof. Samuel St. John, who spent the year after his appointment in Prof. Silliman's laboratory at New Haven and commenced giving instruction at Hudson in the fall of 1839. Two of his courses were geological, one in crystallography in the second term, and one in mineralogy and geology in the third term of senior year, all courses being required of all students. These courses were given unchanged for the next eight years. In 1844 Prof. St. John was chosen to fill the chair of Chemistry and Medical Jurisprudence in the newly organized medical department of the college. probable result of this his college work was much cut down and in 1847-48 a course of one term in chemistry, mineralogy and geology replaces the previous two terms of work in those subjects. In the following year the course in crystallography disappears and the single course in chemistry, mineralogy and geology alone remains of the five courses at first given by Prof. St. John. The medical department had experienced a surprisingly rapid growth and the increased demands thus made upon his time in all probability account for the lessened instruction at Hudson.

In the catalogue for 1847-48 the name of Forest Shepard, Professor of Agricultural Chemistry and Economic Geology, appears for the first time. This is a most peculiar chair for a small college at this date and apparently the reasons for its establishment were unusual. It does not appear that he ever gave, or was ever expected to give, any instruction in the college nor did he receive any pecuniary compensation. What the precise reasons for his nominal connection with the college were can only be guessed at.

In the early fifties the college was in an exceedingly critical condition. For a year there was no scientific instruction whatever, and there was none in chemistry and geology for four years. In 1852 Prof. St. John's connection with the college terminated, though he continued in his position on the medical faculty. In 1856 Prof. Shepard resigned. In 1856-57 the trustees authorized the President to arrange for instruction in the sciences at a cost not to exceed \$200, and a one term course in astronomy, chemistry, mineralogy and geology was given by Dr. Cassels of the Medical College faculty. In the following year his name appears in the list of the college faculty as lecturer in chemistry and natural history, and he continued to serve in this capacity until 1869. He gave in this year a one term course in botany, mineralogy and geology, a far less congested course than that of the preceding year, and a similar course was given until 1869, now in the first, and now in the third term of senior year.

In 1869 the Hurlbut chair of natural history and chemistry, endowed in 1865, was filled by the appointment of Prof. E. W. Morley. Then instead of the courses being hurriedly given by a medical professor in such time as could be spared from other duties, they were given by one on the ground. Such expansion would naturally be looked for and is seen in the giving of separate courses in botany and geology, doubling the time previously given to each.

In 1875 Prof. Morley was elected to Dr. Cassel's chair in the medical school, though notwithstanding the extra work thus assumed his courses in the college were not encroached upon in any way. In this year also elective studies first appear to any extent, the work of the last two terms of senior year being largely made elective. Geology however continues as a required study. In 1877-78 the modern language course was established but this caused no change in the scientific courses.

In the year of removal to Cleveland, 1882, the college year was divided into two semesters, instead of three terms as heretofore. This lengthened the time given to geology somewhat, and in addition a course in determinative mineralogy was offered for the first time.

In the fall of 1891 the course in geology was made an elective instead of a required study. The course in determinative mineralogy was an elective from the first. The establishment of the College for Women in 1888 necessitated the duplication of the scientific instruction for its classes and the work in the medical school was given up. Even then the instruction requirements were too heavy for one man to carry and in the fall of 1892 an instructor in geology and chemistry was added to the teaching staff. A course in descriptive mineralogy and crystallography was added to those previously given and an elective was offered in the newly established graduate department. In the next year a chair in geology and mineralogy was established but

the incumbent continued to aid in the chemical department. In this year the geological instruction was further increased by a more comprehensive course in geology running throughout the year, the other three courses remaining as before. The establishment of the Latin-scientific course in 1896 so greatly increased the required work in chemistry that an addition to the instructing force of the department was necessary, and this addition enabled the instructor in geology to give his entire time to that work. The group system of electives was abolished at this time and the courses in the department were entirely remodelled, the short course in geology which had persisted through so many years was done away with and two courses in geology and two in mineralogy were offered, one in each half year. The same courses were of necessity also offered to the College for Women. In 1898 the work of the department was still further increased by the addition of a half year's course in physiography in both colleges. This is a peculiarly important subject for this university because of the large proportion of its graduates who teach, and the next expansion of the department should be along this line. however, impracticable without increased teaching force.

Occasional special and more advanced courses are given from time to time, on application, to properly prepared students of both colleges, but the instructor's time is too fully occupied to permit of giving such work the attention it deserves. The department is at the limit of its growth with the present force of instruction, and should the classes continue their present increase in size it may become necessary to divide them into sections for satisfactory work, in which case the present number of courses will have to be cut down.

Scientific instruction is costly in that it demands much illustrative equipment. In Prof. St. John's time the college became possessed of a fair collection of minerals and rocks

for the time. From that date to 1895 the additions to the departmental equipment were very meager. The establishment of the course in physiography imperatively required a large addition to the equipment and to a considerable extent this has been forthcoming, and much of it is helpful in the geological instruction. From this standpoint therefore the department is at present in far better shape than at any previous time, but in certain lines considerable additions to the equipment are imperative in order that satisfactory work may be done. This is the more especially true in order that more advanced courses may be given.

Since 1857 there has been a steady growth in the geological department. The one term course in botany, mineralogy and geology of that time has become the five half-year courses in mineralogy, geology and physiography of the present. The larger part of this increase has been, in the last eight years, coincident with the rapid growth of the institution in all respects during that time. The one will grow with the other in the future.

## PHYSICAL CULTURE.

"Exercise—Systematic bodily exercise is deemed indispensable to the health and best mental improvement of
the students. Provision has therefore been made for their
accommodation in mechanical and agricultural labor. The
avails of such labor afford considerable pecuniary assistance." Such is the statement made in the catalogue of
Western Reserve College for the year 1831. From 1835
to 1838 a more elaborate statement was made, in which was
found this unique sentence: "The students receive compensation in proportion to their earnings. In some cases they
have, in this way, done much towards defraying their
expenses; others have received little besides health of body
and vigor and elasticity of mind."

These statements can well be considered a record of the beginning of the Department of Gymnastics and Athletics. It is interesting to note in the catalogues of the successive years, not only the increase in equipment in this department, but especially the development of a broader idea in regard to it. At first exercise was used as a more pleasing term for manual labor, which, as the following shows, was the expression adopted later. The catalogue of 1840 contains this paragraph:

"Manual labor, either on the college lands or in the employment of those connected with the college, can be had to occupy the student's vacant hours and afford him healthful exercise as well as valuable profit. Regular, industrious young men may earn eight cents an hour and one dollar a week, and forty dollars a year. Labor, however, is voluntary, and few have perseverance to reach the highest amount."

From this statement, which the catalogues for the next fifteen years contained, either entirely or in part, it will be seen that the exercise department was put to so practical a turn that even the idea of exercise was made secondary to the idea of earning something towards the college expenses.

Nothing can be told from the catalogues of any changes which may have taken place in the next fifteen years, for there are no statements in regard to this department until 1870 and 1871, when the following record appears:

"Gymnasium.—The Gymnasium has been equipped for exercise in light gymnastics, and a regular hour for exercise will be assigned to each class."

Exercise is still emphasized. Ten years before Amherst College had erected the first college gymnasium. Western Reserve College makes a start along this line, although the full purport of the gymnasium idea does not seem to have been appreciated at this time. However, exercise is no longer synonymous with manual labor.

Again no record of this department is found in the catalogues. This time it is for a period of six years. However, for the three years following 1877, this department attained the highest dignity that has yet been given it. The catalogue of 1877 contains the following:

"A graduate of the West Point Military Academy has taken charge of the Department of Military Science and Tactics. The United States Government has furnished a supply of breech-loading rifles, and of field pieces with materials for target practice. The excellent physical training, as well as the knowledge and skill in military science thus secured, is conducive to the health, activity, and manly character of the student. A neat and servicable uniform has been adopted which, obtained at wholesale rates, diminishes the expense of clothing."

This seems to have been the first time that any one had this department in charge. Lieut. E. M. Weaver was Professor of Military Science and Tactics. This is also the first mention we have of physical training, and then it is only as a natural result of participation in military drills, and not the primary aim of the department.

No further record is given in the catalogues until 1888, or the year in which the present gymnasium was built. Then, as a last paragraph in the article on Apparatus, Laboratories, Observatory, Museum and Gymnasium, we find the following;

"A well-equipped Gymnasium, erected in 1888, is now at the service of the College, with a systematic drill under a competent instructor."

Mr. L. K. Baker, now Dr. Baker, was the first Instructor in Physical Culture. Mr. W. W. Payne was his successor. Each held the position for two years. Mr. D. R. Trenaman, who followed, was instructor for three years. Instructor was simply a title and not a rank, however, until Dr. C. G. Lang's third year, when the Instructor of Physi-

cal Culture was made a member of the Faculty with the rank of Instructor. Dr. Lang was succeeded by Charles J. Wehr, a graduate of Adelbert College, and at present a medical student in the University.

This year, by a vote of the Faculty, this department was placed on an equal standing with the other departments of the College in regard to the grading in the prescribed course for the Freshmen. Thus, by gradual evolution, the idea of the function of this department has changed, so that it no longer has to do with exercise through manual labor, nor simply with systematic exercise or drill, but it is now the Department of Physical Culture and Physical Training.

From 1891 to 1897 Dr. J. P. Sawyer delivered a course of lectures in Hygiene to the Freshmen. Next year the same subject will be taken up under the present instructor in physical culture.

In this short account only a few words can be said in regard to the development in athletics. From the first copy of The Adelbert, published in 1890; some of these facts were learned. Base ball, which at that time took the lead, had its beginning in the College in 1866, and was at its best from 1885 to that time. Since then base ball has gradually declined in popularity until this year, when an effort was made to place it in its former standing. Tennis was begun in the college in 1883. The first college field day was held May 22, 1886. Since 1896 Reserve has met Case in track athletics and a gradual lowering of records has resulted. Previous to these intercollegiate meets, Adelbert had its representatives at the meet of the Ohio Intercollegiate Athletic Association, while that organization lasted. ball, which is now the most popular and important game in Reserve's athletics, had its real beginning in about 1889. The Adelbert, later the Reserve Athletic Association, was organized at about the same time. In 1893 the athletic field was graded and fenced. Five years ago basket ball was added to the list of college games and has gained in prominence until this year, when Reserve produced a championship team. Of the five branches of athletics mentioned above, tennis is the only one in which Reserve does not compete with other institutions. So from the small beginning of 1866, our athletics have grown until now, when we have our representative teams on the diamond, the gridiron, the court and the track.

# A SKETCH OF THE HISTORY AND PRESENT CONDITION OF THE LIBRARY OF ADELBERT COLLEGE.

In President Cutler's History of Western Reserve College but a few lines are devoted to the progress of the library, and the author speaks of the difficulty of obtaining the information needed for a history of its growth. The early catalogues of the college have little or nothing to say about the library. In the catalogue of 1831 there is an indirect reference to it under the caption "Expenses," where the "Use of text books and stationery" is listed at \$1 or \$1.50. The text books in question belonged to the library, and it was one of the duties of the librarian to loan them, and to collect the fees charged for their use, reckoned at so much per term. In 1850 we find the library possessing nine copies of the Collectanea Gracca Majora, v. 2. These were to be loaned to students, no doubt, and it was for the purpose of thus supplying the needy student with cheap texts that so many duplicates were acquired.

In the catalogue for December, 1835, in speaking of the preparatory students, we note that "such students . . . enjoy the same privileges (as the college students) with regard to the library." In the same catalogue the expense for "classical books, library and stationery" is reckoned at eight

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dollars, and the fact is advertised that such expenses may be reduced by renting books from the library. In this catalogue, too, below the list of trustees and with the names of the secretary and the treasurer, appears the name of the librarian, Rev. Rufus Nutting, Professor of Latin and Greek.

In the catalogue for January, 1837, it is announced that "the professor of mathematics and natural philosophy is now in Europe, for the purpose of purchasing philosophical apparatus and books for the library." In the next catalogue we see the results of Prof. Loomis' famous quest, as we read under the caption "Library" the following:

"The college library contains nearly 4,000 volumes at the present time. \$1,000 was expended during the past year in the purchase of works for the mathematical department. The library will be increased in the other departments as soon as the resources of the college will permit."

The year 1838 finds Philo Wright, senior tutor, installed as librarian, and in the catalogue for that year there is an appeal for money with which to purchase books for the library. Three years later the charge to students for the use of the library is placed at \$1.50, to preparatory students fifty cents. In November, 1842, the library facilities of the college are stated as follows:

College Library	4320
Philozetian Society	802
Phi Delta Society	850
Storr's Association	125
Handel Society	150
•	6247

Henceforth all figures relating to the library resources of the institution include the collections of the Phi Delta and Philozetian societies. These two organizations were decidedly lively and progressive in the old Hudson days, and aside from their most honorable record as literary and debating societies, performed a very useful function in the col-

lege community by supplying the students with miscellaneous literature of the better class. This function the college library never undertook to perform, in the early days for lack of funds, and in later years both because of the same lack of funds, and because this service is so ably and cheerfully done by the Public Library and Case Library.

That some of the students availed themselves of the opportunities for light reading offered by the libraries of the literary societies we may guess from the following paragraph, which appears in the faculty records for July 3, 1839:

"A petition was presented from a number of students, relating to the practice of reading novels and other books in church on the Sabbath."

Quite the antithesis of this practice was the petition presented to the trustees in August, 1833, and "signed by the members of the Freshman class and other students, praying that the Bible and other Christian authors may be studied as classics, instead of the heathen authors." It would seem reasonably safe to infer that even the lightest literature of a student body such as this was, in thought if not in literary technique, far above the level of the so-called light literature of to-day.

From the Laws of Western Reserve College, adopted August, 1845, I extract the following rules which are of interest in connection with the library:

#### LIBRARY REGULATIONS.

- 1. The library shall be open on Saturday of each week at such hour or hours as the librarian may designate. In cases of special necessity the librarian may open the library at other times.
- 2. There shall be four return days, viz.: the first, fifth, ninth, and last Saturdays of each term.
- 3. The charge for the use of text books shall be from one to two shillings a volume per term, at the discretion of the librarian.

- II. Students shall not enter the alcoves or take books from the shelves without the assent of the librarian.
- 12. Students shall be permitted to draw in the order of college rank, beginning with the higher classes.
- 13. If two or more members of the same class wish to draw the same book at the same time the librarian may decide the matter by lot.

In 1850 Charles Jewett published, as an appendix to the report of the board of regents of the Smithsonian Institution, a report on the libraries of the United States. The account of the college library, signed by Prof. Henry N. Day, as librarian, though brief, is interesting, and I append it in full:

"The college library was founded in 1826, and contains 4,568 volumes, exclusive of periodicals and pamphlets, unbound, which amount to about 200 volumes. The average annual increase for the last ten years has been 133 volumes, mostly donations. About \$50 a year have been appropriated for books. A brick building, 62x42, was erected for chapel and library. The library room is 40 feet square. A catalogue (18 pp., 12 mo.) was printed in ——. The library is open each Saturday afternoon. The faculty use the books without charge. The students pay \$1.50 per annum. About 1,000 books are lent out each year. There are two societies of students connected with the college possessing libraries, containing together 3,066 volumes."

According to this report, the college students had at their command 7,634 volumes. Many of these were duplicates, however, as in many cases copies of standard works were purchased by each of the literary societies and by the college,—a criminal waste of funds, it would seem, when we think of the poverty of the Hudson of 1850. However meager an equipment of 7,634 volumes may seem to us now, it was more than any educational institution in the state could

boast at that time, with the single exception of Lane Seminary. The figures are interesting:

Lane Seminary	10000
Western Reserve College	
Kenyon College	7550
Miami University	6786
Marietta College	
Wittenberg College	5265
Oberlin Institute	4000
Ohio Wesleyan University	<b>278</b> 0

Of the colleges proper Western Reserve heads the list, with Kenyon (founded in 1824) a close second. At this time the library of the University of Pennsylvania numbered only 5,000 volumes, and the libraries of its literary societies but 3,250, and Pennsylvania is 76 years older than Western Reserve. Then, as now, Harvard University led with 84,200 volumes; Yale had 50,000; Bowdoin, 24,750; Columbia, 12,740; Michigan, 5,000. It was an era of small things in the library world.

While no copy of the twelve-page catalogue, of uncertain date, mentioned by Prof. Day is available at this writing, a catalogue of the library published in 1850 is extant. It is a small volume of 62 pages, a single column to the page, in which are listed 4,169 volumes, exclusive of many duplicates. These volumes are divided into 19 main classes, and many of the classes further subdivided.

In no better way can we give an idea of the nature of this collection than to name the classes and give the number of volumes in each.

I. English Literatu	re (397 vol:	s.)
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I.	Collective works
2.	Oratory
3.	Poetry
	Essays
5.	Miscellanies
6.	Encyclopaedias
7.	Bibliography

	8. Philology	38
	9. Criticism	62
	10. Education	17
	11. Reading and Elocution	36
II.	Hebrew	35
III.	Greek	116
IV.	Latin	164
V.	Modern Literature	58
VI.	Biography	165
3777	History (a6s vols )	

94

WESTERN RESERVE UNIVERSITY.

VII	. History (205 vois.)	
	I. Secular	166
	2. Religious	99
VIII	Geography and Chronology	43
IX	Travels and Voyages	51
$\mathbf{X}$ .	. Mathematics and Physics (414 vols.)	
	1. Transactions and Memoirs	129
	2. Astronomy	58
	3. Physics	102

	5. Arts	6
XI.	Natural History	47
XII.	Chemistry	14
KIII.	Medicine	31

4. Mathematics ..... 119

77

XIII.	Medicine	31
XIV.	Mental Science (82 vols.)	
	I. Intellectual Philosophy	68
	2. Logic	6
	3. Ethics	8
XV.	Biblical Theology (273 vols.)	
	I. Commentaries	168
	2. Sacred Literature	77

	3. Hermeneutics	24
	4. Archaeology	4
XVI.	Doctrinal Theology (268 vols.)	
	I. Collective Works	71
	2. General Treatises	38
	3. Particular Doctrines	159
XVII.	Practical Theology (502 vols.)	
	1. Collective Works	35

2. Ecclesiastical Polity ...... 66

Of the volumes listed under the heading "English Literature" less than two-thirds legitimately belong there, and not more than 240 volumes were available for the study of English and American literature. The class called "modern literature" should really have been called "modern languages." The 58 volumes under this head are made up mainly of grammars and Bibles in the German, French, Spanish, Portuguese, Polish, Persian, Syriac and Modern Greek languages. As Dr. Walz observes in an article on the study of modern languages in Western Reserve College, interest in these studies is of very recent growth. The list of works on mathematics, physics and astronomy is remarkably good as far as it goes, and makes up 10 per cent. of the whole library, while theology, with its three main divisions and its thirteen subdivisions, comprises more than a thousand volumes, or 25 per cent, of the total number of volumes. The publications of the United States government, which are listed as "Legislative and Diplomatic," under the main class "Civil science," make up 20 per cent.

In the ten years following Prof. Day's report the rate of growth did not increase very rapidly, as we find that only 2,000 volumes were added to the libraries of the college and the literary societies in that time. In the catalogue for 1861-62 the number of volumes in all is given at 10,000. In the

year 1860 a very handsome manuscript catalogue of the library was compiled by Dr. C. F. Sintenis. It is an alphabetic author catalogue, written in a large folio ledger evidently made for the purpose, and it seems to be a very creditable piece of work.

From 1861 to 1877 the library growth was but 1,000 volumes, an average annual increase of about 64 volumes. In 1877 the number is given as 11,000, and it is 1884 before another thousand is added. In the catalogue for 1882-83 (the first issued by Adelbert College), we find a statement that the "college library consists largely of books of reference, including complete sets of many valuable library and scientific serials. There is a nucleus for a valuable library, and additions are being made from year to year. The libraries of the literary societies are of a more miscellaneous character, and are accessible to all students." This was the most that could be said for the library at that time, but better times were coming.

In 1883 Mr. Geo. Mygatt gave \$1,000 to be spent for books for the German department, then in its infancy, Prof. Palmer having been elected professor of German the year before. This is the first mention in the college catalogues of a specific lump sum spent for books since Prof. Loomis' purchase in 1837. In the catalogue for 1886-87 the name of Prof. Arthur H. Palmer, professor of German, appears as librarian, and it is with his appointment, sixty years after the establishment of the library, that its new life begins. Within a year after the new librarian had entered upon the duties of his office the library had doubled in size. This sudden increase was due to the acquisition of the famous Scherer Collection, purchased in January, 1887, from the estate of Dr. Wilhelm Scherer, professor of German literature in the University of Berlin. Of the amount needed for the purchase of this valuable library (about \$7,000), a large part was donated by citizens of Cleveland, Hon. John Hay, Mr. and Mrs.

Samuel Mather, S. E. Williamson, '64, M. G. Watterson, '60, and Mr. Leonard Schlather being among the largest contributors. German citizens gave \$700. In all \$4,000 was donated.

The Scherer Library numbers about 12,000 volumes, and relates chiefly to Germanic philology and German literature. but history, philosophy, comparative philology, French literature, and the history of art are well represented. With the addition of this collection to the college library the department of German becomes the best equipped, as far as books are concerned, of any of the college departments, and at this time still remains so. This unique and valuable collection has done much to spread the reputation of the college abroad, and requests for the loan of volumes belonging to it have come from libraries and scholars far and near, one request coming from the Director of the Royal Library in Ber-An earnest effort is made to keep this department abreast of the times, and in this effort the head of the German department has the hearty co-operation of the library committee. Too much praise cannot be given Prof. Palmer, and his successor. Prof. Harris, for the time and labor spent in their endeavors to make the most of the very limited appropriation at their command.

Prof. Palmer's administration of the library, when we consider that it was added to his duties as professor of German, was most admirable. A large part of the Scherer collection he catalogued with his own hand, and the work he did was well done. He organized the library, combined the volumes belonging to the college with those of the two literary societies, and classified the whole according to the Dewey decimal system. In December, 1885, an accession record was begun, which was dropped in April, 1887, owing probably to the pressure of work on the Scherer conection. It is greatly to be regretted that a complete accession record of this collection could not have been made, but with the help

available at the time it was, of course, impossible to do so. None of the Scherer books were entered in the accession book, and the accession record was not resumed until October, 1892, under Prof. Platner's administration.

In the college catalogue for 1888-89 we are informed that a card catalogue is in preparation. This catalogue, prepared under the direction of Prof. Palmer, was a simple author and title catalogue, and at first all of the work upon it was done by the professors, as a labor of love. Later, unfortunately, much of the work was done by student assistants, and some of this work was very carelessly done, and the cards have had to be re-written from time to time. This catalogue, imperfect as it must be owing to the circumstances under which it was compiled, has been an invaluable aid, but as the library grows its limitations become more and more pronounced, and it should be replaced by a dictionary catalogue as soon as circumstances will permit. Beginning with the summer of 1900 subject cards have been made for all books catalogued, and such cards have been made for a part of the books for some years past, though without much attempt at system.

In the year 1888 we find that "the library is open not less than six hours daily"—a decided advance over the old system, under which we find it open one hour a week for the withdrawal and return of books. The librarian now ceases to be a mere keeper of books, and becomes a distributor of books. The students now have the privilege not only of drawing books to be read in their rooms, but of browsing at will among many thousand volumes, from which they may choose at leisure those which create a desire for closer acquaintance. No one can estimate the good which this close communion with a large number of well-chosen volumes effects, and any student who has, through his own blindness or through lack of opportunity, failed to avail himself of these special privileges, has missed one of the best opportu-

nities for culture which the well-equipped college affords. In 1889 we note from the catalogue that the minimum limit for hours of opening is reduced to four, the librarian being dependent upon student assistants or monitors. The next year the limit is raised to five hours, at which figure it remains until 1895, when it is raised to seven. In 1896, when the library was moved into its new home in the Hatch Library, the building was open from 7:30 a.m. to 5:30 p.m., a stretch of ten hours. This was reduced one-half hour in 1807, the hour of opening being placed at 8 a. m., at which point it has since remained. In September, 1900, the librarian suggested the plan of opening the library in the evening, Monday to Friday, from 7 to 9:30. The plan met with the approval of the President and of the chairman of the library committee, and went into effect on the first day of the new term. At first the attendance was very light, but increased after Thanksgiving. It seems probable that a falling off will occur in the late spring months, and it is doubtful if enough is gained to warrant trying the experiment of evening opening for another year. However, at the present time, the library is open daily from 8 a. m. to 5:30 p. m. (Sunday excepted), and Monday to Friday, from 7 to 0:30 p. m., a total of 601 hours per week.

The year 1887, notable through the acquisition of the Scherer Library, is more notable because of the expenditure of Mrs. Samuel Mather's gift of \$2,000 (made in November, 1886), the first of a long line of benefactions from that most generous friend of the college. This sum was spent, so the records tell us, chiefly for the binding of English and American periodicals, for English, French and German bibliographical works and cyclopaedias, for biographical dictionaries, dictionaries of modern languages, and for the publications of the Early English Text Society. This purchase marks the beginning of our collections in bibliography, English literature, and of the present reference collection. Among

the bibliographical works purchased at this time were Heinsius' Bücherlexikon, Quérard's La France Littéraire and La Littérature Française Contemporaine, Lorenz-Catalogue de Librairie Française, Watt's Bibliotheca Britannica. Lowndes' Bibliographer's manual and the Catalogue of the Library of the Boston Athenæum. With the Scherer Library came quite a number of the smaller German bibliographical works touching upon incunabula and early printed books. From these and the volumes purchased from Mrs. Mather's gift has grown a fairly serviceable bibliographical library. The great catalogue of the British Museum library we have not been able to acquire, nor have we added the larger works on the incunabula and early printed books, as Hain, Panzer, Mattaire and Copinger, nor the works covering the book output of Belgium, the Scandinavian countries, Holland, Spain, and Italy. It is to be hoped that the near future may see the library in the possession of them, as a good bibliographical collection is a great saver of time and labor. A beginning in Italian and Spanish bibliography has been made by a subscription for the Catalogo generale della Libreria Italiana, 1847-1899, and the purchase of the catalogue of the Ticknor Collection of Spanish and Portuguese books in the Boston Public Library.

Among the larger reference works added at this time were the Dictionary of National Biography, Biographie Générale, Larousse—Grand Dictionnaire Universal, Meyer—Konversations-Lexikon, Brockhaus—Konversations-Lexikon, Grove—Dictionary of Music and Musicians and Mc-Clintock and Strong—Cyclopaedia of Biblical, Theological and Ecclesiastical Literature.

From this beginning there has grown up in the past fourteen years a reasonably efficient reference library, and the purchases of the year to come will probably add much to its value. To the cyclopaedias mentioned above have been added the *Britannica*, American Encyclopaedia, the Interna-

Eional (by exchange for a duplicate set), the new Johnson's Cyclopaedia and La Grande Encyclopédie; to the biographical dictionaries Appleton's, the National Cyclopaedia of American Biography. Bayle, Moreri, Allibone, Century Dictionary of Names, Lippincott, Vapereau, Phillips, De Gubernatis, Jöcher's Gelehrten-Lexikon, Bornmüller, Pataky, Men and Women of the Time, Poggendorff, and many smaller works. Special cyclopaedias have received some attention, the classics, music, art, architecture, chemistry, religion, political economy, sociology, statistics, and military science being among the subjects thus covered. A large number of the smaller works of reference in literature and history are now in the library, and the collection of ready reference books of quotations is very good.

Dictionaries, English and foreign, are well represented on our reference shelves. Among the English dictionaries may be mentioned Webster, Worcester, Standard, Century, Stormonth, Murray's New English Dictionary on Historical Principles, Skeat, the Stanford Dictionary of Anglicised Words, the Dialect Dictionary, and many of the older lexicographical works of importance. Anglo-Saxon and Middle English are covered by Stratmann, Hall, Sweet, Leo and Bosworth-Toller. Of the foreign dictionaries Du Cange Diez, Kluge, Körting, Grimm, Heyne, Sanders, Littré, Godefroy, and Rigutini and Fanfani are among the names that occur to us as we write, and the standard lexicons for translating from other languages into English are on our shelves.

In the autumn of 1891 the name of Prof. Platner, professor of Latin, appears in the catalogue as librarian. In October, 1892, the accession-record was resumed, and though it would seem that it was not consistently kept up during the next two years, owing to the lack of proper assistance in administration, it has not been allowed to lapse entirely up to the date of this writing. In 1892 the library committee, in an endeavor to meet the long-felt need for more assistance

in the administration of the library, chose Mr. F. C. Waite, a graduate student, assistant librarian, and in the following year, when Mr. Waite became assistant in the biological laboratory, Mr. S. W. Berry, class of '93, was appointed, and remained for one year. In 1804 the committee recognized the need of a librarian who could devote all of his time to the administration of the library, and recommended the appointment of the present incumbent, who entered upon his duties in September, 1894.

Since that date many circumstances have conspired together to promote the rapid development of the library as an important department of the college and of the university, and among these none has contributed more toward the growth of the library in efficiency than Mr. Hatch's gift of the spacious and beautiful library building dedicated in June, 1896, of which we shall speak more at length in another place. In September, 1897, an addition to the regular force of the library was made in the person of Miss Caroline E. Waters, class of '97, College for Women. Up to this time the only assistance available was that of students, most of whom served merely as monitors in the reference room. Their services in that capacity were still retained, so that Miss Waters' time might be available for cataloguing. The ordering of books, a great deal of which had been done before this time directly by the heads of departments, began more and more to go through the librarian, until in December, 1898, the library committee decided that all orders for books to be paid for out of library funds must be made by the librarian. Up to this time the bookkeeping connected with the buying of books for the library had been in the hands of the treasurer. It was decided to add this to the duties of library administration, so that the accounts of the various departments are now kept in the library, the bills approved by the library committee, and turned over to the treasurer for payment. Thus it devolves upon the librarian to see that the funds at

the disposal of any department are not overdrawn. This new duty and the increase in book orders adds yearly to the work of administration.

Since the early days of the library when the catalogue was practically a list of the books in the order in which they stood on the shelves, no shelf list record of the books had been made. This record it seemed wise to make, therefore, in the summer of 1898, the librarian and assistant librarian, aided by one of the students, commenced work upon such a list, and succeeded in making a record of the following classes: Class 100 (Philosophy); 300 (Sociology), except 370 (Education); 400-450 (General Philology and English, German, French and Italian); 800-850 (General Literature and American, English, German, French and Italian Literature). Since that time no new classes have been listed, but the records already made have been kept up to date.

In 1800 the librarian was granted a year's leave of absence to be spent in study of library methods, and during the college year 1800-1000 the library was under the care of Miss Waters, acting as librarian, assisted by Mr. R. M. Packard, class of '99, who was doing work in the graduate school, and by Miss Julia M. Parsons. Miss Waters' administration was most efficient. This year is notable in the annals of the li-In December, 1899, Mr. and Mrs. Samuel Mather donated the sum of \$12,000 for the purchase of books, the largest gift in its history. It is expected that the expenditure of this sum will place the library on a good working basis, so that a reasonably generous annual income will suffice for the purchase of current works of value and for the keeping up of serial publications needed for the work of the departments. In the fifteen months which have elapsed since this gift was made nearly 5,000 volumes have been added, and large orders are outstanding and in preparation. This increase does not include the library of Dr. Kirtland, which was deposited in the Biological Laboratory.

In June, 1900, Mr. Packard and Miss Parsons severed their connection with the library, and in September Miss Edith L. Eastman was appointed as an assistant. This is the first time in the history of the library that the services of a regular cataloguer were available, as previous to this time a large part of each assistant's time had to be given to other work.

In another place we have spoken of the resources of the reference department and of the bibliographical collection. It may not be out of place to say a few words about the other sections of the library individually, though the limits of this sketch will permit of only the most meager description.

## GERMAN.

The history of the Scherer collection and of the additions to it is the history of this department of the library. At present it consists of a German literature collection numbering between 5,000 and 6,000 volumes, and works on German philology numbering between 700 and 800 volumes. The literature library is rich in the best texts of Old and Middle High German, and in the classics of the New High German. The Goethe collection is exceptionally good. The best writers of the 19th century are represented by complete or representative works. Rare editions abound. The philological library contains many valuable works on the German dialects, besides the important works on German and Germanic philology. The value of both parts of this collection is much enhanced by the presence of complete sets of many rare and valuable periodicals. A large and valuable pamphlet collection and some of the German literary periodicals are not included in the figures given above.

#### ENGLISH.

In a previous paragraph mention was made of the purchase of the publications of the Early English Text Society.

We have seen how meager was the equipment for English and American literature study in 1850, a quarter century after the founding of the college. The study of the English language and literature seems until very recent years to have evoked little enthusiasm in Western Reserve, and to this, no doubt, may be ascribed the scanty supply of books in that department. Perhaps, too, the presence of two large libraries in the city, with so many thousand volumes of English literature readily accessible, and the fact that so much of the standard literature is available in the libraries of individuals, will help to explain the late development of the departments of English and American literature. It is the natural tendency of the college officers to provide those things not easily accessible elsewhere.

In the Report of the President and Faculty, 1889-90, the head of the English department mentions the addition of 150 volumes of the works of 18th century authors. From this time on almost every annual report of the library contains a reference to the needs of the English department. Soon the publications of the Chaucer Society were added, and in the report of the librarian made in June, 1894, we read that "the library now has a fair working collection of poetry, English and American, and the most important English dramas. It, however, represents English prose most meagerly. It is also deficient in the literary periodicals. One thousand dollars could be wisely spent immediately for general prose and periodicals."

In the year 1894-95 complete sets of Anglia and Englishe Studien, and a collection of dissertations on English language and literature were acquired. This purchase marks the beginning of the collection of books for the scientific study of English. About this time, too, the library committee begins to take a deep interest in the development of this department, and to devote to its increase a generous share of the funds available each year for the purchase of books. It

is gradually reaching a point of considerable efficiency, and by the time that orders now outstanding and in preparation are filled it will be fairly well equipped for work. The size of the collection is as follows: American literature, about 700 volumes; English literature, about 2,600 volumes; English philology, about 250 volumes. These figures do not include the English literary periodicals, and a valuable collection of pamphlets.

#### GREEK.

The classical departments were, naturally enough, as well equipped as any under the old regime. When the lines began to broaden out, however, the limitations of the library were felt very keenly. Prof. Bernadotte Perrin, who had charge of the Greek from 1880-02, had a very fine private library, and was compelled to depend upon it for much of the work in his department. In the catalogue for 1887-88 we read that "Mr. and Mrs. C. W. Bingham have furnished the money (about \$450) for the purchase . . . of the great publications by the German government of the results of excavations at Olympia and Pergamon. These supply generous material for the illustration of Greek and Roman art and archaeology." In 1893 the department purchased from Prof. Perrin his fine collection of classical periodicals. This collection has been supplemented by the addition of new serials, and all have been kept up to date. The annual subscriptions to twenty-five serials are carried for this department.

#### LATIN.

In the years 1891-92 the college spent about \$700 for books for the Latin department. This sum was used chiefly in procuring good editions of Latin authors. About this time a course in Latin archaeology was introduced into the curriculum, and this necessitated an addition to the library resources of the department. The Corpus Inscriptionum Latingrum and Corpus Inscriptionum Etruscarum were soon

added. In 1895 a collection on numismatics was begun which included such works as Cohen—Medailles Consulaires; Cohen—Medailles Imperiales, 8 volumes; Eckhel—Doctrina numorum, 9 volumes; Mommsen—Geschichte des Römischen Münzwesens. A recent acquisition, Borghesi's works in ten volumes, makes a worthy addition to this small but valuable collection. Besides the best works on epigraphy, palaeography and archaeology, the standard works in literary history and criticism are present, and the Latin library has now reached a point of considerable efficiency. The resources of this department now number about 1,200 volumes, to which should be added the files of classical periodicals (mentioned in connection with Greek) and a large number of works classified with Roman history.

## ROMANCE LANGUAGES.

In October, 1888, Hon. John Hay gave the library \$1,000 for the purchase of the works of standard French authors. This gift is notable, both as the first of many similar gifts of Col. Hay, and as marking an important step in the growth of the French library. Perhaps no collection in the library has had a more even development than this, and represents so large a value in proportion to the sum spent upon it, and to the number of volumes acquired. The work so well begun by Prof. Palmer, as librarian, has been most ably continued by Prof. Warren, as head of the department of Romance Languages. The acquisition of a good working collection was the end in view, and no personal preferences were allowed to interfere in the working out of the problem, as is too often the case in the development of college libraries. Constant watch was kept for bargains in second-hand books, and many sets of standard authors, in good bindings, were acquired in this way for a merely nominal price. The library now numbers, all told, 2,600 volumes. It consists principally of sets of standard authors, with individual biography and criticism for the more important writers, general criti-

cism, the best histories of French literature, including such monumental works as the famous Histoire littéraire de la France, in 33 volumes. In the case of many of the wellknown contemporary writers representative works are present, no attempt being made to make up sets of complete works. Old French is not so well represented, owing to the fact that little money has been available, most of the texts being quite expensive, and it seemed best to purchase the later literature first. However, the publications of the Société des Anciens Textes Français is now in the library and many of the best texts in Old French—a fair beginning. · Almost nothing has been done in philology up to the present time. The serial publications belonging to the department are the Zeitschrift für Französische Sprache und Litteratur. Romania, Revue d'Histoire littéraire de la France, Zeitschrift für Romanische Philologie, Revue des Langues Romanes, and Ausgaben aus der Romanischen Philologie. The Provencal collection is small.

During the academic year 1891-92 a large part of the Modern Language appropriation was spent for Spanish and Italian authors. This was practically the beginning of these collections, as there was almost nothing in the library before that time. In Italian, editions and criticism of Dante, Petrarch, Ariosto, Tasso and Boccaccio were purchased, and editions of Goldoni, Parini, Carducci, Manzoni and other standard authors. Representative works of contemporary novelists, as Fogazzaro, Serao, Castelnuovo, Caccianiga, De Amicis and Verga were included, besides some works in criticism and literary history. But little has been added since 1892, owing to the lack of funds. The Spanish books purchased at that time consisted for the most part of the works of contemporary novelists, as Valdes, Bazán, Galdos, and Alarcon. Ticknor's History of Spanish literature and some other standard works had been in the old library or had been acquired with the Scherer collection. In 1897 an opportunity presented itself to purchase at a bargain the choicest volumes of Rivadeneyra's Biblioteca de Autores Españoles. In this lot were obtained the works of Cervantes. Lope de Vega, De Royas, Tirso de Molina, and many of the writers of the golden age of Spanish literature. The Spanish and Italian libraries together number about 400 volumes. Of Portuguese literature we have almost nothing. Camoens' works in two editions, one Portuguese and one German, one or two works of criticism on Camoens, Garcia de Resende's Cancioneiro Geral, and two works of Braga on Portuguese literary history representing about all we have that is worthy of mention. In the purchase of works in French, Italian and Spanish, and especially in the case of recent works of fiction, care has been taken to duplicate as little as possible works on the shelves of Case Library.

#### PHILOSOPHY.

In 1850 the catalogue of the college library contained exactly thirty-one titles of works on intellectual philosophy, exclusive of duplicates. This collection included the collected works of Locke, Berkeley, Thomas Brown and single works by Malebranche, S. T. Coleridge, Combe, Cousin, Hartlev. Hume, Kant, Morell, Payne, Reid, Ritter, Rush, Spurzheim, Dugald Stewart, Tennemann, Tucker, Upham, Watts, Blaisdale and Drew. This is a complete list of authors included, and the library numbered sixty-eight volumes, exclusive of duplicates. The works at the command of the teacher of logic were J. S. Mill—System of logic; Duncan—Elements; Hedge-Elements; Jamieson-Grammar of logic; Logic, Ontology and the Art of Poetry; and Ufford-Elementary Treatise on Logic. There were five copies of Duncan, four of Hedge, and thirteen of Jamieson. There were seven titles in the ethics collection, exclusive of duplicates, and Beattie, Dymond, Paley, Price, Smith, Wardlaw and Wayland were the authors represented. These three small collections represent the entire equipment of the department of philosophy at that time.

Exactly what the rate of growth of the department was between the years 1850 and 1882 we cannot say, but in 1891, when Prof. Curtis entered upon his work as professor of philosophy, its equipment was far from satisfactory. There was an effort made in that year to supply the deficiencies in part, at least, and the generosity of Mrs. Mather and Col. Hay made possible an expenditure of \$650 during 1801-02. In June, 1804, the librarian states that "the needs of this department are serious as regards modern philosophy and the history and philosophy of religion." Through the personal efforts of the head of the department in the following years much was done to fill up the gaps, and at the date of this writing the department is fairly well equipped for work. Among the periodicals on its shelves may be mentioned complete files of the Monist, Mind, Archiv für Geschichte der Philosophie, Archiv für systematische Philosophic, Journal of Speculative Philosophy, Philosophical Review, Zeitschrift für Philosophie und Philosophische Kritik, Philosophische Monatshefte, Philosophische Studien, Zeitschrift für Exacte Philosophie, Revue Philosophique, Revue de Metaphysique, American Journal of Psychology, Psychological Review, and International Journal of Ethics.

In 1893-94 the department was enabled to devote \$200 to the purchase of works on anthropology, and important additions to this collection have been made since that time. Notable are the sets of Archiv für Anthropologie, American Antiquarian, American Anthropologist, Anthropological Review, Zeitschrift für Ethnologie, Journal of the Anthropological Institute, and Transactions of the Ethnological Society of London. The books in the philosophy seminar now number nearly 1,800, of which about 1,400 belong to the division philosophy and the remainder to anthropology. This number includes no books on the history and philoso-

phy of religion and on sociology, which are classified and shelved elsewhere.

#### HISTORY.

The coming of Prof. E. G. Bourne as instructor in history in the year 1888, marks the beginning of the new era in that department of the library, and from that time on the growth of the department has been steady, if sometimes a little slow. One or two notable gifts may be mentioned, one in 1804 of a valuable collection of works on the French Revolution, from Mr. Henry Adams, of Washington, and another in 1800 of 300 volumes relating chiefly to American history, from the same donor. The first gift contained such works as Le Moniteur, 32 volumes, reprint; same, 16 volumes, original file; Correspondance de Napoléon I, 32 volumes; Correspondence du Roi Joseph, 10 volumes. second donation included such works as Massachusetts Historical Society Proceedings and Collections; Records of Massachusetts Bay; Records of New Plymouth; Columbian Centinel: Independent Chronicle; Boston Gazette; Boston Patriot: New England Palladium: a number of the Sabin reprints, and other valuable works of a similar nature. By completing the incomplete sets, and supplementing these gifts by the purchase of works along the same lines, we are gradually getting together collections which are quite serviceable as the basis for definite historical courses.

Among the historical sources now in the library may be mentioned Stevens' Fac-Similes of Documents in European Archives relating to America, 25 volumes, the gift of Hon. John Hay; Scriptores Rerum Germanicarum; Geschichtschreiber der Deutschen Vorzeit; Chroniken der Deutschen Städte; Rerum Alammanicarum Scriptores; Fontes Rerum Austriacarum; and Recueil des Historiens des Gaules et de la France. Since a set of the Rolls Series, the great source work for English history, is in the Public Library, there will be no need for the college library to purchase this set, but a

set of the Monumenta Germanica should be accessible somewhere in the city. The Scherer Library included many valuable historical works, especially along the line of German history, general and local. At present the department is growing principally in the section of American history, and a great deal must still be done to bring this department up to the highest point of efficiency. English history needs attention, and the completion of our set of Parliamentary Debates, a few volumes of which we possess, is a problem for the future. The historical department now numbers about 9,000 volumes, inclusive of about 2,000 volumes of government publications important for the study of history.

#### ECONOMICS.

The elementary instruction given in economics until very recent years required no great equipment of books. It was not until about the year 1888, when Prof. Bourne commenced to give a regular course in economics, that the library began to grow on that side, and then it did not grow very fast, owing to small appropriations. In 1894 a professor of economics was appointed, and since that date the growth of the department's equipment of books has been systematic, if slow. From 1891 to December, 1899, when Mr. Mather's gift of \$12,000 was made to the library, but \$735 was devoted to the purchase of works for this department, though during the year 1892 some purchases were made from history funds. In December, 1899, the library committee voted a generous appropriation from the Mather gift. During the year 1900 and the early part of 1901 frequent and important additions have been made, and it will not be long before this department of the library is in fair condition. The number of volumes now in this collection is about 1,700.

## MATHEMATICS.

We have seen that Prof. Loomis in 1837 spent \$1,000 "for books for the mathematical department." This pur-

chase included books in physics, astronomy, and mathematics, and is the most important accession to the library up to the time of the purchase of the Scherer Library. The works bought by Prof. Loomis represent the best to be had in his day. Among them were many of the rarest and most valuable works in astronomy and mathematics. We note in the library catalogue of 1850 that the library possesses of books in astronomy, 58 volumes; in physics, 102 volumes; in mathematics, 119 volumes; of transactions and memoirs, 129 volumes; in all, 408 volumes, or 10 per cent of the whole library. With the exception of the sets of the great mathematical serials, the additions to mathematics have been few. In the report of the librarian for 1801-02 we find a statement that "mathematical journals have been taken by the college library for some years," followed by a list of them, and the number of volumes in each set lacking. Since that time efforts have been made to complete these sets. As a result of these efforts the library now possesses files of the following periodicals: Crelle's Journal für die Reine und Angewandte Mathematik, 121 volumes; American Journal of Mathematics, 22 volumes: Annals of Mathematics, 11 volumes; and Mathematische Annalen, v. 25-52. As we write negotiations are in progress for the completion of this last-named set. These journals are very expensive, and the cost of the annual subscriptions to them and the expense attending the completion of these files have practically exhausted the funds at the disposal of the department.

In considering the resources of each of the scientific departments account must be taken of the general scientific collection, which numbers nearly 800 volumes. The most valuable set in this section of the library is the *Philosophical Transactions of the Royal Society*. In 1837 Prof. Loomis purchased the volumes of the set to the year 1836; about the year 1877 it was completed to 1876; in 1889 Mrs. Amasa Stone made possible the completion of the set to that year;

and in 1896 Series A, 1889-1895, was purchased. From 1749 the volumes of the regular series are present, the earlier transactions being represented in the abridged edition. The Biological Series (Series B), from 1889 to date, is lacking.

### CHEMISTRY.

The presence in the chemical laboratory of Prof. Morley's magnificent collection of chemical works and sets of periodicals has made it unnecessary for the college to devote much money to books for this department. Prof. Morley's library contains complete files of all the important and long-established journals of pure chemistry, and the most important journals and proceedings of societies containing pure chemistry, but not devoted exclusively to it, as Gilbert und Poggendorff—Annalen; Annales de Chimie et de Physique; Proceedings of the Royal Society; and Comptes Rendus de l'Académie des Sciences. This collection is surpassed by none in America.

## PHYSICS.

The department of physics has been troubled, as have all the departments of the library, by a lack of funds, and has been able merely to add the books most needed. There are now deposited in the physical laboratory about 700 volumes on physics and astronomy. This small library includes some of the great scientific classics, as the works of Delambre, Bessel, Lalande and Helmholtz, and Laplace—Mécanique Céleste, both the original French edition and Bowditch's famous translation. To the resources of the department must be added the Philosophical Transactions of the Royal Society, Philosophical Magazine and Journal of Science, American Journal of Science, and many other works and sets of a general nature, shelved in the main library. In the year 1900 a number of important works were added to the astronomical collection.

#### GEOLOGY.

In 1838 Samuel St. John was chosen professor of chemistry, mineralogy and geology in Western Reserve College, and in 1847 the name of Forrest Shephard appears as "professor of agricultural chemistry and economic geology," which position he held until 1856. During this period mention is made in the catalogues of the laboratory equipment for carrying on the work. From 1855 to 1860 geology appears in connection with a lectureship in "chemistry and natural history," and in 1869 Prof. Morley was chosen professor of chemistry and natural history. As late as 1892 the instruction in geology was confined to an elementary course given by the professor of chemistry. In that year an instructor in geology was appointed, four courses were offered in 1892-93, and in 1895 a professorship of geology was established. Under such circumstances one would not look for an early development for the geological library. fact, in the library catalogue for 1850 but twelve volumes on geology appear. In later years the libraries of the literary societies possessed some of the standard manuals of geology and mineralogy. In 1805 a large addition was made to the department, consisting principally of the reports of the state geological surveys. At this time the library resources for the study of geology and mineralogy are as follows: Periodicals, 130 volumes; U. S. Geological Survey publications and reports of state surveys, 600 volumes; miscellaneous books, 175 volumes.

#### BIOLOGY.

The biological library has grown up entirely since the establishment of the department in 1888. More than 600 volumes are now shelved in the laboratory. These include the files of a dozen of the leading biological periodicals, and a set of the *Challenger* report. In the autumn of 1900 there was deposited in the laboratory, through the kindness of

Mrs. Cutter, the library of Dr. Jared P. Kirtland, for many years a professor in the Medical Department of Western Reserve College. This library, which numbers more than 2,000 volumes, is rich in the older literature of agriculture, horticulture, natural history, conchology, travel, and local history.

# THE PEDAGOGICAL COLLECTION.

During the summer of 1896 there was exhibited in Hatch Library, as an educational feature of the Cleveland Centennial, a collection of text books and similar works. numbering about 2,000 volumes, and loaned, at the request of Pres. Thwing and Prof. H. E. Bourne, by various publishers in America, France and Germany. A very complete exhibit of kindergarten material, sent by the Milton Bradley Co., was also a feature of this exhibit. Many of the books were afterwards donated to the library by the publishers, on condition that they be kept together as a permanent pedagogical collection. The volumes in the library contain a bookplate bearing the words "Pedagogical Collection," and up to this time have merged in the general classification, but have been kept together in a special alcove. Of the books forming the original exhibit 1,133 volumes and 186 unbound books and pamphlets were retained. Of this number 70 bound volumes and 60 pamphlets were purchased. One of the features of the Pedagogical Collection is a large number of French and German school-books.

## THE MEXICAN MANUSCRIPTS.

In 1896 the library received the first of many gifts from Mr. Joseph Loubat—better known by his papal title as the Duc de Loubat—in the shape of a facsimile of the Codice messicano Vaticano 3773. Since that time we have received copies of four other famous manuscripts, a copy of Borunda's Clave general de jeroglificos Americanos, besides two other works on Mexican antiquities. The reproductions

of the manuscripts, which have been described more at length in the Western Reserve Bulletin, October, 1900, are very handsome specimens of modern photochromography.

## BOOKS TRANSFERRED FROM THE COLLEGE FOR WOMEN.

The presence on the shelves of Hatch Library of a large number of volumes bearing the bookplate and ownership marks of the library of the College for Women may need a word of explanation here. Since 1896, when the erection of the Hatch Library afforded such a spacious and beautiful home for the college library, the latter has assumed more and more each year the functions of a university library. The books on its shelves were always at the disposal of the students of the College for Women, and the exigencies of class-work have necessitated an increasing use of the library each year, as their own library is entirely inadequate. It has seemed best to the library committee of the College for Women, therefore, to deposit many of their books in Hatch Library, where they are classified, catalogued and placed on the shelves with the books of Adelbert College, though preserving the ownership marks of the College for Women. As a rule, duplicates of volumes already in the library of Adelbert College are not transferred. It is impossible to say at this time just how many volumes have been deposited in this way.

#### DEPARTMENT LIBRARIES.

In this college, as in all other colleges, the department library has been the natural result of an effort to meet certain needs. In the library regulations contained in the "Laws of Western Reserve College, adopted August, 1845," we observe that "books of reference for the use of the Theological Department may be drawn from the library by some designated member of the department to be personally responsible for them, without charge, and in such numbers, and for such time as the Librarian may deem expedient." Here is a definite extension of the library rules to meet cer-

tain needs, and in this extension we can see at once the germ of a future department library. It is from just such small beginnings as this that the department libraries in most colleges and universities have developed. Just as the addition of new departments of instruction necessitates the addition of new departments in the library, so the gradual expansion of various departments beyond the walls of the original college building necessitates a readjustment of the position of the books already in the library. The removal of the library to a building of its own calls for still further readjustments. For many years small collections of books drawn from the library were kept in the rooms of the departments of Latin, Greek, history, economics, biology and chemistry, and this even when the library was in the same building. By some of the departments, as history and economics, the books were returned as soon as the time of special need for them had expired, and other books were taken out. This was merely an extension of the reserve system, the books being reserved in the class-room instead of being put on the reserve shelves of the library. In other departments, however, the tendency was to keep the books once withdrawn from the library, and continually to add to them by withdrawing others from time to time, as need was felt. In this way the Greek department library grew up, and today it contains most of the important Greek works belonging to the college library. All of these volumes are charged to the Greek room, as if withdrawn by an individual, and a checklist is thus kept. Many of the sets of classical periodicals, however, were never in the main library, passing from Prof. Perrin's possession into the hands of the college without being moved from the cases which then held them.

In 1895 all the books pertaining to the study of physics and astronomy were gradually removed to the Physical Laboratory, which was opened for use in the fall of 1894, and, as has been done in the case of each of the department

libraries, the books were charged to the laboratory. Many of the books belonging to the department of biology were never in the main library, as they were purchased by the department directly from funds devoted to its equipment. These volumes were afterwards catalogued by the library, and received its bookplate. When the Biological Laboratory was built many of the volumes were temporarily returned to the main library, owing to a lack of shelving in the laboratory, but in March, 1901, these were removed.

Besides the collections mentioned above, there are small collections of books kept in the rooms and laboratories of the departments of geology, chemistry, Latin and German. The disadvantages of the department system are many, and the extension of the system to cover such departments as English, French, German, history, economics and sociology, the books of which are so constantly in demand for the general reader, would seem unwise in a library so little able as ours to purchase duplicates, but for the scientific departments the advantages decidedly outweigh the disadvantages. One temporary advantage only need be stated here. If it should become necessary to transfer all the books from the departments to the main library, no convenient shelf-room could be afforded them in Hatch Library.

## HATCH LIBRARY BUILDING.

In 1850 we find the college library occupying a room 40 x 40 feet. In the years 1882 to 1896 a single large room in the main building of Adelbert College was devoted to its use. Though this room was well arranged to hold the largest number of volumes possible, there was no provision of any kind for administration. Two large tables were provided for the students, one table for the display of current periodicals, and one was set aside for the librarian, to be used as a charging desk and work-table. From floor to ceiling one side and both ends of the room were covered with

wall-cases, a gallery around these three sides making possible the use of the upper shelves. Seven floor cases of varying lengths placed at right angles to the side wall added very much to the book capacity. The arrangement was admirable, all things considered, affording the greatest possible book-space, and still providing some room for readers. The library was lighted from one side only. Artificial lighting was provided for by two chandeliers, whose light would have been inadequate if it had been necessary to keep the library open in the evening.

In the librarian's report for the year 1891-92 the need of additional room for the library is urged, and it was proposed to use the class-rooms at each end of the library room. In 1884 a large number of books—duplicates and worn-out and useless volumes—were stored in boxes in the attic, and not long afterward, under Prof. Palmer's administration, another lot was consigned to the same place, in order to leave more room for the "live" books. However, conditions were soon to improve.

In the fall of 1894 Mr. Henry R. Hatch indicated to the President his desire to erect a library building for the university. In the spring of 1895 the work was begun, on June 15, 1896, the building was dedicated, and by July 2 of the same year the books were all in place in the new building.

Following is a description of the building, printed as part of the program of the dedicatory exercises:

"The Hatch Library is a building cruciform in plan, and, when complete, is to be 95x101 feet with a tower 15x15 feet, forming main entrance. Only the main building, 33x101 feet, and tower are now complete, it being the intention to build the arms or wings 28x32 feet each, in the near future. The building is two stories high with a basement. The basement, 8 feet in the clear, contains a large workshop with suitable shelving, tables, etc., a men's toilet and coat room and a lift extending from basement to the second story

reference room. The first story, 13 feet in the clear, with double entrances through the tower, contains an entrance hall, a reading room 15x30 feet, furnished with corner seats, desk and two periodical cases, also a women's toilet and cloak room, the Library Hall, 26x30 feet, and a stack room 30x40 feet. The stack room is fitted with wrought steel stacks, and is capable of holding from 30,000 to 50,000 volumes. The stack-room is fire-proof, being constructed with brick walls, steel beams with terra cotta coverings. The Library hall, with opening to roof, forming a rotunda in effect, is fitted, with the librarian's alcove, with desk, suitable closets, shelving and card cases. A spacious stairway leads to the second story, which is one large room 30x80 feet, forming a reference and work room, with open timber roof, the framing of which is 20 feet in height. At the South end, three book cases on each side form alcoves, and at the North end, steel racks on each side and end give provision for books. Suitable tables, chairs and cabinets provide the students with conveniences for work.

"The building is English Gothic in design, known as the college type, consistent in design throughout, solidly built of buff Ohio sandstone, laid in broken ashlar. The stone walls are backed with brick. The interior finish is of Georgia pine, natural finish, including the floors. The tower entrance has a marble mosaic floor. The roof of main building is of black Maine slate, and the projections of copper.

"The glass is cathedral, of amber tints in lead and copper designs, and, except in the reading room and librarian's room, it is polished plate glass. The windows of lobby and stair hall are in deep blue opalescent glass with gold and pearl emblematic forms, open book and cross keys. The glass in the large rose window of the main gable is filled with pearl and gold opalescent glass in leaded line.

"The building is heated and ventilated with steam taken from another building.

"The lighting is with gas, the fixtures old brass, in Gothic forms."

In 1898 the wings spoken of above were added, and in November of that year were ready for use. Each of the wings is divided into two rooms, the end room in each, furnished with handsome wall cases and cabinets, being used as a seminary room; the inner section of one fitted with steel book-stacks, and the inner section of the other containing the librarian's office and a small stack. The stacks in the wings were equipped with electric lights, and at the same time the gas fixtures were removed from the main stackroom, and electric lights put in there also. The attractiveness of this building is an unfailing source of pleasure.

## RELATIONS WITH OTHER LIRRARIES.

The relations which have existed between the college library and the other libraries of the city have been most pleasant. In the catalogue for the year 1889-90 mention is first made that the privileges of Case Library and the Public Library are extended to the college students. The authorities of the Public Library have been unfailing in their efforts to oblige us, and since the autumn of 1896 Hatch Library has been a delivery station of the city library, requisitions for books, in whatever numbers, being honored whenever possible, and the books delivered at the college library. During the college year 1900-1901 a daily messenger service has been in force between the libraries. This placing of the great resources of the city library at the command of the professors is a great help, not only when books are needed which the college library does not possess, but also when duplicate copies are needed for class-work, as often happens. In but few cases can a library with the resources of ours afford to buy needed duplicates. The presence of the valuable collection of the Western Reserve Historical Society within five minutes' walk of Hatch Library

is most convenient, affording another possible source of help for professors or students engaged in research work.

Requests for books coming from other college libraries have been cheerfully granted. Such requests have come from libraries as widely separated as Johns Hopkins, University of Chicago, Yale University, Ohio State University, and the Royal Library of Berlin. On the other hand we have occasion frequently to borrow, and have always met with generous treatment. For such generosity we are under obligations chiefly to the libraries of Harvard and Cornell Universities.

#### LIBRARY FUNDS.

In Prof. Day's report of 1850 we remember that he says, "The average annual increase for the last ten years has been 133 volumes, mostly donations." This dependence of the library for growth upon the accident of gifts and the caprice of givers was one element of its weakness. Yet in all the years that followed it was never released from this condition, though in later years there has been a difference in that it relies upon gifts of money, and not of books directly. On December 1, 1898, the permanent resources for the purchase of books consisted of an investment of funds yielding an annual income of \$164.80, plus the interest on \$78, which is to be expended for the parts of the Murray Dictionary, as they appear. The regular annual income pays for the subscriptions to the general periodicals, leaving the expensive periodical lists of the various departments to be paid for out of the very small amount usually at the disposal of each department annually. No reasonable complaint can be made of the generosity of the friends of the library since the removal of the College to Cleveland, but it would seem that such an important department as the library should not have to depend for its development upon gifts made from time to time.

Following is a statement of the apportionment of the gifts of money received from 1891 to January, 1901, among the various departments. This does not include numerous small gifts, the record of whose apportionment does not appear in the annual reports of the librarian for those years:

Library Committee Fund \$	2,481.00
Bible	150.00
Binding	2,075.00
Biology	1.785.00
Chemistry	895.00
Economics	1,735.00
English	3,755.∞
Geology and Physiography	1,260.00
German	2,150.00
Greek	<b>965.0</b> 0
Classical Philology	735.00
History	1,935.00
Latin	1,543.00
Mathematics	940.00
Pedagogy	25 00
Philosophy	3,012.00
Physics and Astronomy	1,604. <b>0</b> 0
Romance Languages	1,850.00
Total	28.805.00

Perhaps in no better way can the lines of growth of the library be indicated than by the publication of the list of periodicals and serial publications now received. Some publications not subscribed for regularly and a few serial publications of the United States government are omitted. The total number of titles on this list is 238, of which number 19 are annuals. Gifts are preceded by an asterisk.

Academy.

- \*Adelbert.
- \*Advocate of Peace.

Alemannia.

- \*American.
- American Academy. Annals.
- \*American Academy of Medicine. Bulletin.

## WESTERN RESERVE UNIVERSITY.

American Economic Association. Publications.

\*American Economist.

American Geologist.

\*American Journal of Archaeology.

American Journal of Mathematics.

American Journal of Physiology.

American Journal of Science.

American Journal of Sociology.

American Historical Review.

American Naturalist.

- \*American Philosophical Society. Proceedings.
- \*Amherst College Library. Quarterly Bulletin.

Anatomischer Anzeiger.

Anglia.

Anglia. Beiblatt.

Annalen der Physik und Chemie.

Annalen der Physik und Chemie. Beiblatt.

\*Anales de la Universidad de Chile.

Annals of Mathematics.

Arbeiten an dem zoologischen Institute der Universität Wien.

Archiv für Anthropologie.

Archiv für das Studium der neueren Sprachen.

Archiv für Geschichte der Philosophie.

Archiv für Systematische Philosophie.

Astronomical Journal.

Astrophysical Journal.

Athenæum.

Atlantic Monthly.

Auk.

Beiträge zur Geschichte der Deutschen Sprache.

Berliner Philologische Wochenschrift.

Bibliographie de la France.

Bibliotheca Philologica Classica.

\*Bibliotheca Sacra.

Bibliothek des Litterarischen Vereins in Stuttgart.

Biological Bulletin.

Biologisches Centralblatt.

Blätter für das Gymnasial-Schulwesen.

Bonner Beiträge zur Anglistik.

- \*Book Reviews.
- \*Boston Public Library Bulletin.
- \*Brockhaus' Monthly List.

- \*Büchermarkt.
- \*Bulletin of Bibliography.

Bulletin de Correspondance Héllénique.

- \*Bureau of Economic Research. Quarterly Bulletin. Bursian & Müller's Jahresbericht.
- \*California University. Bulletin of Department of Geology.
- \*Catholic University Bulletin.
- \*Catalogue Mensuel de la Librairie Française.

Century.

Chaucer Society. Publications

Chautauquan.

- \*Chicago University Record.
- \*Cleveland Citizen.
- \*College Folio.
- \*Columbia University. Quarterly.

Columbia University. Studies in History, Economics, and Public Law.

\*Congregationalist.

Contemporary Review.

\*Criterion.

Critic.

Cumulative Book Index.

Cumulative Index to Periodicals.

Current History.

Deutsche Rundschau.

Dialect Notes.

Dissertationes Philologicae Halenses.

Early English Text Society. Publications.

Economic Journal.

Economic Review.

\*Education.

Educational Review.

\*Emerson College Magazine.

Englische Studien.

English Historical Review.

EOHMEPIS.

Euphorion.

\*Finance.

Fortnightly Review.

Forum.

Fortschritte der Physik.

Geological Society of America. Bulletin.

Geologisches Centralblatt.

Harper's Magazine.

Harper's Weekly.

\*Hartford Seminary Record.

Harvard Graduates' Magazine.

Hermes.

Historische Zeitschrift.

Hochschul-Nachrichten.

\*Illinois University Studies.

Independent.

\*Intelligence.

International Journal of Ethics.

Jahrbuch der Kaiserl. Deutschen Archäologischen Instituts.

Jahresberichte über die Erscheinungen auf dem Gebiete der Germanischen Philologie.

Jahresberichte des Österreichischen Archäologischen Institutes in Wien.

Journal of Applied Microscopy.

Journal für die Reine und Angewandte Mathematik.

Journal of Geology.

Journal of Germanic Philology.

Journal of Morphology.

Journal of Political Economy.

Journal of the Royal Microscopical Society.

Johns Hopkins University. Studies.

\*Latin Leaflet.

Library.

Library Journal.

Literarisches Centralblatt.

Literary Digest.

\*Literary News.

Littell's Living Age.

London Times. (Weekly).

Mathematische Annalen.

- \*Maine University. Studies.
- \*Maine University. Bulletin.

Mind.

\*Missionary Herald.

Mittheilungen des Kaiserlich Deutschen Archäologischen Instituts. Römische Abtheilung.

Mittheilungen des Kaiserlich Deutschen Archäologischen Instituts. Athenische Abtheilung.

Mittheilungen aus d. zoologischen Station zu Neapel.

Mnemosyne.

Modern Language Association. Publications.

Modern Language Notes.

\*Money.

Monist.

Municipal Affairs.

Nation.

\*National Geographic Magazine.

Nature.

\*Nebraska University. Studies.

Neue Jahrbücher.

Neue Philologische Rundschau.

Neueren Sprachen (Die).

New World.

Nineteenth Century.

North American Review.

- \*Ohio Archæological and Historical Quarterly.
- \*Open Shelf.
- \*Outing.
- \*Pacific Medical Journal.

Philologus.

Philosophical Magazine and Journal of Science.

Philosophical Review.

Physikalische Zeitschrift.

Political Science Quarterly.

Popular Astronomy.

Popular Science Monthly.

ПРАКТІКА.

\*Pratt Institute. Bulletin.

Preussische Jahrbücher.

- \*Princeton University Bulletin.
- \*Providence Libraries Bulletin.

Public Libraries.

Public Opinion.

Publishers' Circular.

Publishers' Weekly.

Quarterly Journal of Economics.

Quarterly Journal of Microscopical Science.

Quellen und Forschungen zur Sprach- und Culturgeschichte der Germanischen Völker.

Répertoire Bibliographique de la Librairie Française.

Review of Reviews.

Revue Critique d'Histoire et de Littérature.

Revue des deux Mondes.

Revue d'Histoire Littéraire de la France.

Revue des Langues Romanes.

Revue de Métaphysique et de Morale.

Revue de Philologie.

Revue des Questions Historiques.

Revue Historique.

Revue Philosophique.

Rheinisches Museum für Philologie.

Rivista di Filologia.

Romania.

\*Salvation.

Science.

Science Abstracts.

Scribner's Magazine.

Société des Anciens Textes Français. Bulletin.

\*Sound Currency.

\*Southern News Letter.

Studien zur Englischen Philologie.

Studj di Filologia Romanza.

\*Technological Review.

Terrestrial Magnetism.

\*Toronto University. Studies.

Transactions of American Philological Association.

- \*Traveler's Record.
- \*Trinity College Bulletin.
- \*Tuft's College Studies.
- \*U. S.-Monthly Catalogue of Public Documents.
- \*U. S.-Consular Reports.
- \*U. S.—Department of Agriculture. Library Bulletin.
- \*U. S.-Labor Bureau. Bulletin.
- \*U. S.-Patent Office Gazette.

Wiener Studien.

Wochenschrift für Klassische Philologie.

Wöchentliches Verzeichniss.

Yale Review.

- \*Yale University Bulletin.
- \*Yale Alumni Weekly.

Zeitschrift für Deutsches Altertum und Deutsche Litteratur.

Zeitschrift für den Deutschen Gymnasialwesen.

Zeitschrift für den Deutschen Unterricht.

Zeitschrift für Deutsche Philologie.

Zeitschrift für Französische Sprache und Litteratur.

Zeitschrift für Philosophie und Philosophische Kritik.

Zeitschrift für Romanische Philologie.

Zeitschrift für Vergleichende Litteraturgeschichte.

Zoologischer Anzeiger.

Zoologischer Jahresbericht.

#### ANNUALS.

Annual Literary Index.

Annual Register.

Appleton's Annual Cyclopædia.

Bibliographie der Deutschen Zeitschriften-Litteratur.

English Catalogue.

Gœthe-Gesellschaft—Jahrbuch.

Gœthe-Gesellschaft-Schriften.

Grillparzer-Gesellschaft-Jahrbuch.

Hazell's Annual.

Jahresberichte der Geschichtswissenschaft.

Jordell's Répertoire Bibliographique des Principales Revues Françaises.

Kürschner's Deutsche Litteratur-Kalendar.

Minerva.

Statesman's Year-Book.

Tribune Almanac.

Whitaker's Almanac.

Who's Who in America.

Who's Who.

World (New York) Almanac.

From this sketch of the history of the College Library, unsatisfactory as it is, the following general statements may be deduced: First, that as long as the text book method of instruction prevailed the library's growth was naturally slow; second, that the beginning of each department of the library was contemporaneous with the establishment of the corresponding department of instruction. The latter statement is probably true of most college libraries, few of which have funds more than sufficient to satisfy actually pressing

needs. A third point to be noted is that the possession of unusually good special collections entails the moral obligation of keeping up such collections by constant additions. This is true not only of such acquisitions as the Scherer Library, but also of sets of valuable and expensive periodicals and serial publications.

The growth of the library of this college is typical of the library experience of all the colleges of the Middle West. In 1836 one large addition was made, owing perhaps to the influence of the commanding personality of Prof. Loomis, and for the next fifty years progress was at a snail's pace, and there were long periods of stagnation. The beginning of the modern library movement, in 1876, seems to have had no effect upon the College Library, though we find that about this time the money was raised to complete the set of Transactions of the Royal Society, which had been allowed to fall behind forty years. It is not until seven years later that the new life of the library begins. This new birth is marked by Mr. Mygatt's gift in 1883. In the eighteen years which have elapsed since that date the library as it exists today has grown up. Within that time it has more than trebled the number of volumes, and has increased in value and efficiency in far greater proportion. As these words are written—in June, 1901—the number of volumes on its shelves is 41,000, or, inclusive of the Kirtland Collection, more than 43,000.

The expansion of knowledge has rendered necessary the elective system of studies. In the catalogue of 1875-6 attention was called to the fact that certain optional studies may be taken in the Junior and Senior year. Until the year 1891-2, the system of optional studies continued. In this year was introduced what is known as the "Group" system. This system obtained, as well as the required method of the

choice of studies in groups, until two years ago, when its required character was eliminated, but the system has since that time been used as a general basis for the choice of studies of the last two years of the course.

With the close of the last year of the period of threequarters of a century, the Faculty has determined to make the studies of the last three years of the course, entirely elective with a slight exception, but elective under certain conditions. The conditions of election represent the division of all the studies of the course into three large groups. The first consists of those which represent the sciences and mathematics: the second consists of those which represent languages and literatures, and the third includes those which represent philosophy, history, social and economic science. each of these three groups, each student is required to take four courses of three hours each. One course represents one study of three hours pursued for half a year. last three years, each student is required to take thirty courses, or five courses in each semester of each year. Of this amount, twelve courses, four from each of these three groups, must be taken. In other words, twelve-thirtieths of the work is required. In addition to these studies, the student is obliged to continue the study of English, one hour a week in the Sophomore year. Through this method of election, it is believed by the Faculty that the student will be able to secure a concentration of study, which will not result in too great specialism, and thus will be able also to secure a certain degree of liberal training, which will not approach intellectual dissipation. The peril of the unrestricted elective system is great. The disadvantage of the absolutely required system is certainly very great. problem is to secure the advantages of absolute freedom of choice without the perils, and also to secure whatever advantage may lie in the required system without the disadvantage. Whatever definition we may give to education, I believe that the method (adopted by the unanimous vote of the Faculty) has very great worth. If education be defined as a training in the power of thinking, one is obliged to infer that studies should be largely limited to one field. studies taken from many fields are elementary, and elementary studies do not develop the power of thinking. one define education as a training in the sense of relations, one is obliged to say that studies should be chosen from more than one field of thought or of investigation. result leads to the demand that the student shall choose from all the great domains of knowledge. If one interpret the definition of education as the endeavor to constitute the student an efficient member of human society, the inference that studies should at once train one to think and also develop the sense of relationship is inevitable. This inference leads to the conclusion that the student should know somewhat about every field of knowledge, and also should know a great deal of some one field. If, in the broadest way, education is interpreted as the training of intellect unto thinking, the training of the heart unto enjoyment, the training of the will unto efficient service, the training of the conscience unto a sense of duty, and the training of the aesthetic faculty unto the appreciation of beauty, the conclusion becomes inevitable that the student may be required to know somewhat regarding the world in which he lives, regarding the past out of which he has come, and regarding the relationships of mankind of whom he is himself a part. From this conclusion a further inference may be drawn that he should become an expert in knowledge and service in some one of these departments.

This extension of the elective system of studies into the Sophomore year, under the limitation suggested, seems to add fitness to the recommendation made to the report of one year ago, that the college shall hereafter give one, and only one degree, the degree of A. B. to all students who

have completed the course. For the course of studies becomes very largely the same for all students. The Faculties of both undergraduate colleges have therefore seen fit to pass a vote recommending that one degree be given to all students. It is recommended that in Adelbert College this degree shall take effect in the year 1904, in which year the class graduating shall have finished the course of study as it is now constituted.

The financial history of Adelbert College of Western Reserve University is among the most significent of all the annals of its seventy-five years. Behind the simple figures which I present lie anxiety, labor, economy, sacrifice. The work of founding a college in a new country, nourishing it for many years, is among the most serious services given to men to do.

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In 1832 the endowment was $ 70,610.81 of which $40,000 proved to
                                85,580.92 "
   1850
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                      "
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                                                        "
                                                              be worthless.
              ..
                      "
                                90,682.09 "
                                                  ..
                                                         "
                                                               66
   1860
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             . .
                      . .
                               143,630.50 "
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                                                        • 6
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   1870
             ٠.
                      ..
                               203,681.54 "
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                                                        ..
                                                               ٠.
   1880
   1882
             ..
                      ..
                               182,800.00
             . .
                      • •
   1890
                               687,237 39
             ..
                      ..
   1900
                               758,645.31
```

The rate of income has been so nearly on even six per cent. for the whole period that no particular discrimination or division into periods seems possible. Many of the investments have netted of course more than this rate, but the average has been only a fraction over six per cent. (No record is available, except the journal entries of totals.)

Herewith is also presented a statement showing the salaries of the officers in the three-quarters of a century:

```
      1831-1832, salary of President was
      $ 720

      Salary of Professor of Sacred Theology (same person)
      1,200

      Salary of Professor of Sacred Literature
      600

      Professor of Greek and Latin
      1,400

      Professor of Mathematics and Physics
      1,200
```

These salaries were voted by the trustees at their annual meeting, being based on "endowments" of the chairs of theology (\$10,000), sacred literature (\$10,000), and Greek and Latin (\$14,000). These endowments were in promissory notes, which had been subscribed in lieu of cash endowments, the interest to be paid on the notes until principal was paid. As a matter of fact the interest was largely defaulted, and these professors averaged less than six hundred dollars each per year. At the annual meeting of each year it was customary for the trustees to give their note for the unpaid balance, bearing interest, which interest was usually not met.

In 1836 the trustees voted: "That hereafter the salary of the President be \$820 a year, together with house rent and garden, making a total of \$900, and that the professors' salaries be \$700 each per annum."

In 1844 a report of a committee, appointed to make an examination of the College's financial standing, showed that of the subscriptions for endowment more than \$40,000, out of a total of some \$80,000, had been unredeemed, and the interest regularly defaulted, and also that the College had incurred over \$30,000 of indebtedness. This debt was largely composed of notes for professor's salaries, as I have above indicated.

In 1856, President Hitchcock, on his election, was promised an annual compensation of one thousand dollars.

In 1864 the professorships were put on a basis of a thousand dollars each, and the president was voted two hundred dollars more.

In 1868 one hundred dollars was added to each of these amounts.

In 1870 the salary of professors was made \$1,500; the president, \$1,800; and in 1878-9 the president was given \$2,000.

In 1882 the salary of professors was made \$3,000, and that of the president \$3,500.

In 1889-90 the salary of professors was made \$2,500, and that of the president \$4,000 (1890-91).

Additions have been made to the salaries of officers in the last two years. It is hoped that the Board may be able to make still further additions.

What has been said touching work and prosperity of the older under-graduate college, for men, applies to the under-graduate college for women in its history of the past year. The number of students and attendance has been 210. The number of students in each of the years since its establishment has been as follows:

1888–89,	14	1893-94,	101	1897–98,	146
1889-90,	48	1894–95,	108	1898–99,	183
1890-91,	55	1895–96,	128	1899-00,	171
1891–92,	45	1896–97,	127	1900-01,	210
1892-93,	85				

The income from students has been \$14,500.

The total income from all sources has been \$35,000.

The year in the College for Women has marked the beginning of a building to be known as the Florence Harkness Memorial Chapel, and also the beginning of the building to be known as Haydn Hall. The necessity for the erection of a building to be used as a study room and as a lunch room for students whose home is in town, has been absolute. Guilford House has been obliged to refuse admission to not a few students. In order, therefore, to secure rooms for dormitory purposes and also advantages for students living in town, Haydn Hall is to be erected. This building has its origin in the same wisdom and generosity which have so constantly contributed to the betterment of humanity through this University. It bears a name, too, which is more significant to this community than any words can express. The chapel will, it is believed,

be ready for use at the opening of the next academic year. This building, it may be added, will also contain rooms for recitation purposes and also for the placing of the Florence Harkness' Biblical Library. The erection of these two buildings represents the filling of most urgent needs and the increase of the power of the college for securing its highest purposes in serving humanity.

The Graduate School is essentially a school for the training of teachers. It is not a school of education in the technical sense, though it does offer certain courses in the technique of education, but it is a school in which those who either are teachers, or have been teachers, or propose to become teachers, pursue studies of advance relationships in order that they may equip themselves the more thoroughly for their work as teachers. The school, therefore, although not a school of education, bears the most important relation to education. It has proved to be of great service to those who are serving as teachers in Cleveland as well as to the graduates of our own colleges and other colleges who propose to become teachers.

The one difficulty under which the School labors is that the instruction is given by those whose primary duty is owed to the under-graduate colleges. In certain cases, the work of the Graduate School is done as work additional to a proper amount of teaching already performed in the under-graduate colleges. It is probably not wise, even if it were possible, absolutely to separate the Graduate School from the under-graduate colleges; but it certainly is not only proper, but also would prove the most advantageous to establish professorships, the primary relations of which should be to the Graduate School, which professorships should also have their secondary relations to the undergraduate colleges.

It is also to be said that the Graduate School is not

only an agency for the training of teachers, but is also an agency and condition for the search of truth through the promotion of the higher scholarship. This noble duty, performed through several members of the Faculty of the Graduate School, has resulted in large additions to the cause of knowledge. The Graduate School represents a first-rate opportunity for the endowment of research.

The Law School has, without doubt, had the most prosperous year in its history. The number of students in each of the years since the foundation of the school has been as follows:

1892–93	24
1893–94	34
1894–95	38
1895–96	11
1896-97	58
1897-98	38
1898–99	96
1899-00	ΙC
1900-01Ic	<b>)2</b>

Of the entire number of graduates of the school, many are practicing lawyers in Cleveland. The others are now serving in their profession in all parts of the country.

Through these graduates the school has secured a standing among the best of the law schools. This grade of the school is also indicated by the rank of its students in the bar examination of the State of Ohio which has been the highest of all schools.

The income of the school has been about \$9,200, of which \$8,400 has been derived from the fees of students, and the balance from gifts, and the expense has been about the same sum.

The growth in numbers of the school make an enlargement of the building an imperative duty. The method of study which obtains, necessitates the consultation of a vast number of Reports. Such consultation demands a large

library and a large room. The study room of the building should be at once increased three-fold. When the building now occupied was built, in the year 1896, it was so built that an addition in the rear could easily be made. At the earliest possible year, this addition should be built. It is probable that no law school at so small an expenditure is doing so large and valuable a work for humanity as the Franklin T. Backus Law School of Western Reserve University.

The year now closing in the Medical College represents the last year of a period which is ceasing in the best medical schools of the United States. It represents the closing of a period in which the best medical schools have been willing to receive students without proper preparation for the study Through the vote taken three years ago, in the next academic year, no student will be received who has not finished at least the Junior year in a good college of liberal learning. A long time and sad has been required to teach the American people that for the proper study of and for the proper practice of the art and science of healing, a mind trained well to think and stored well with knowledge, is necessarv. Humanity does not require more physicians, but it does require better trained physicians. The coming therefore, of the next year in the Medical School, in which this vote first takes effect, is looked forward to with much interest. The most obvious result, of course, will be the lessening of the number of students. From this result follows the second one, the lessening of the amount of in-The Faculty is prepared to accept a smaller number of students and the trustees are asked to bear with the lessened income from students, without a corresponding diminution in the lessening of expenses.

The Medical School of Western Reserve University has now obtained a front rank in what may be called the second class of medical schools. In the first class are possibly two or three medical schools. In the second class, Western Reserve stands among the first. It is the endeavor of both Faculty and Trustees to make the medical school under their charge the best possible agency for the training of physicians.

The School of Dentistry has also had a very prosperous The number of students has been larger and the income also larger than any former year. The growth of this school has caused the Faculty to consider the question of the erection of a building for the use of the school. have been drawn and specifications submitted for the erection of a building to cost about \$25,000. The income of the school is such, that it is hoped in the course of ten years from the income might be derived a sum sufficient to pay for the building. In the nine years since the school was instituted, this school has graduated 270 men, the larger part of whom are now engaged in the practice of dentistry. Not a few of them began their professional work and have continued it in the city of Cleveland. The members of the Faculty, therefore, are enabled to keep in intimate relationship with their former students. The testimony that is constantly offered of the training which the school gives is most grateful to the members of the Faculty. Of every pecuniary advantage which the Board of Trustees can extend to the school, the school is more than worthy.

It is, of course, the duty of Western Reserve University to serve the community in every way in which it is able. It is covetous for opportunities of doing good.

The growth of the system of public libraries in this country, promoted especially by the unique benefactions of Mr. Andrew Carnegie, opens to this university the opportunity of serving the community through the training of

men and women for the administration of libraries. The demand already is great, and is certainly becoming greater for trained librarians.

I therefore beg leave to submit to the Members of the Board, a statement submitted to me by four persons; Mr. Wm. H. Brett of the Public Library, Miss Eastman of the Public Library, Mr. E. C. Williams, our own librarian and Mr. Allen D. Severance of our own faculty. For their statement, I ask a careful perusal; and I indulge the hope that the perusal may result in the assurance that it becomes our duty to establish a library school in case the means can be secured, and I also and heartily hope that the securing of the means may prove to be a task acceptable to the Members of the Board.

APRIL 26, 1901.

# Charles F. Thwing, President Western Reserve University:

DEAR SIR: We beg to submit the following suggestions as to a course of study, the material equipment, and expenses of such a library school as we have informally discussed with you, with a view to organizing it as one of the schools of the University:

REQUIREMENTS FOR ADMISSION—A degree from a reputable College, or an examination which would indicate an equivalent preparation; reading knowledge of French and German.

# COURSE OF STUDY—JUNIOR YEAR.

·	No. of Lectures.	No. hours Practice work.
Note taking	· I	o
Library handwriting	і	o
Alphabeting	3	9
Elementary cataloging	70	350
Elementary bibliography		33
Order and accession departments	10	30
Elementary classification	25	65
Shelf department work	8	16

#### 142

#### WESTERN RESERVE UNIVERSITY.

	No. of Lectures.	No. hours Practice work.					
Loan systems	IO	IO					
Book binding	. 5	15					
Reading seminar, and selection of books	. 38	152					
Reference work	38	76					
Indexing	. 5	10					
Children's work.							
Duplicates and gifts.							
SENIOR YEAR.							
Advanced bibliography	. 19	38					
Reference work	38	<del>7</del> 6					
Advanced cataloging	25	50					
History of libraries	12	6					
Founding and government of libraries	6	12					
Library buildings	19	38					
Book binding							

The course in advanced reference work will include the following subjects:

## HISTORY:

General.

Ancient (especially Greek and Roman.)

Middle Ages.

Renaissance-Reformation period.

English.

American.

French (with special attention to the age of Louis XIV and to the French Revolution.)

German (especially since 1800, and the period of Frederick the Great of Prussia.)

History of the Nineteenth century (in Europe.)

#### GEOGRAPHY:

Historical, etc., with a careful study of modern works on geography and an examination of the best maps and atlases.

COLONIZATION and government of dependencies.

# LITERATURE:

Greek.

Roman.

Literary history of the Middle Ages.

Renaissance.

English.

American.

French.

German.

Current events—a study, in greater detail than would be possible in an elementary course in reference work, of the best sources of information for affairs of to-day and of the last decade or two.

SOCIOLOGY.

ECONOMICS.

EDUCATION.

PHILOSOPHY.

FINE ARTS.

PUBLICATIONS of learned societies.

UNITED STATES DOCUMENTS and publications. Their publication and distribution, with a careful study of their contents, etc.

#### OTHER LECTURES.

From one to three lectures each year on each of the following subjects which may be taken in either the Junior or the Senior year:

Types of libraries.

Functions of the library.

Library commissions.

Library schools.

Music in the library.

Art in the library.

Home libraries.

Traveling libraries.

Reading for the blind.

The two-book system.

Library publications.

Law libraries.

Medical libraries.

Duplicate fiction plan.

Prevention of contagion.

Cooperative cataloging.

Opportunity will also be given for elective courses in the University classes in the following subjects:

Italian.

Spanish.

Paleography.

The school would require for its successful operation rooms especially devoted to it, with space well lighted and warmed for forty desks for students, six desks for instructors, and the necessary cases and cabinets for books, illustrative material and supplies; and a lecture room capable of seating fifty people.

It would need the following material outfit:

40 Desks (in	nclude	s desk	chairs,	lamps,	book	shelves	s, etc.	, at \$40) \$	1,600
6 Desks (	44	"	"	"	"	"	"	at \$50)	300
ı Typewri	ter							• • • • • • • •	100
Office eq	luipme	nt							100
50 Chairs fo	or the	lecture	room	at <b>\$</b> 2 .	<b></b> .				100
Card Cal Miscella	binet neous	}	• • • • • •		• • • • • •	•••••	••••		500
								1	2,700

The above is the estimate for the second year—only thirty students' and four instructors' desks would be needed for the first year's work.

The estimated annual expenditure in addition to the cost of maintaining the building will be as follows for the second and subsequent years:

3 Instructors at \$1500	<b>14500</b>
2 Revisors at \$650	1300
I Clerk	
Stationery, supplies, postage	750
<u>-</u> :	7150

For the first year two instructors and one revisor would be sufficient, reducing the expense to \$5000.00.

This estimate does not include services of University instructors on advanced bibliography and reference work, and for the elective courses offered.

A fee of \$80.00 per year seems fair in comparison with other library schools and with other schools of the University. It seems advisable not to accept more than forty students. The largest possible income from tuition fees would therefore be \$3200. This would leave, in case the classes

were filled, an annual deficiency of \$4150 to be provided for, to which should be added the cost of maintaining the buildings and the cost of the lectures given by members of the University faculty.

The rooms suggested in the dormitory building might serve as temporary quarters for the first year, but in order to enable the school to be successfully carried on a sufficient building should be provided. We would suggest the erection of a building on the campus south of the Hatch Library, fronting on Adelbert St. and connected with the Library by a covered way. If the cooperation of the Public Library Board could be secured, a building might be erected which would house on the first floor a branch of the Public Library and on the second floor the Library School. By telephone connections and a messenger service the resources of the Main Public Library would be conveniently at the service of the neighborhood, the college and the school.

Modern library methods are so thoroughly systematized and require so much work which is strictly technical, that it has been found desirable to establish special schools of instruction. The oldest and most important of these is the New York State Library School at Albany, which makes the same requirements for admission that we have recommended. The Illinois school is an elective for the last two years of the college course, and requires a sophomore preparation. The Pratt and Drexel Institutes admit by examination of a lower standard and give one year courses with supplemental elective courses at Pratt. There are in addition to these, summer schools which are definitely intended to assist those already in library work or who have positions in view and are not able to attend the regular schools.

We suggest the same requirements for admission and a course of the same length as that at Albany, but we believe that the proposed school might be differentiated from the Albany school very greatly to its advantage, as follows:

- 1. The instruction in cataloging should be devoted mainly to dictionary cataloging which is generally used throughout the country, instead of classed cataloging as taught at Albany, which is comparatively little used. This is important.
- 2. By bringing the elementary practical studies more fully into the first year, thus making this a more complete preparation for the work of a library assistant, we would fit students more thoroughly for subordinate positions at the end of that year, and would even recommend them to take opportunities which may offer to do practical work before completing the course. In the second year we would place the studies which deal with the broader phases of library work, including support, control, and administration, which are of more value to those in positions of responsibility as librarians or heads of departments.
- 3. We would give, by the help of the University faculty, more advanced courses in bibliography and reference work.
- 4. Students in the college course planning to enter the library school might advantageously elect such studies as would be of most value to them, the purpose being to give them, in connection with that thoroughness in some special lines which is necessary for mental discipline, a more comprehensive view of the whole field of knowledge than is usually given.

Cleveland offers some special advantages for a library school. If established as one of the schools of the University, the cooperation of the University faculty would be of great value to it. It offers to its students superior advantages for practice work, as by arrangement with the other libraries in town, which could doubtless be made, they would have an opportunity of studying the workings of the Public Library; the Case Library, a good example of its class; the College Library; the Law and Medical Libraries.

The school would occupy an extensive field still vacant, as there is no school between Albany and Southern Illinois. There is a demand for larger facilities for library training. The Albany school has recently increased its numbers from 30 to 48, and has many more applicants for admission than it can accept. The Pratt School gave its examination in 1900 to more than 90 persons, of whom more than 50 passed, and from these a class of 20 was selected. We are not definitely informed as to the other schools, but have no doubt that the same conditions exist. The interest in library training is so great that there is little doubt that a school will be established at some place within this territory within a short time. It is exceedingly desirable that Cleveland should take the initiative in this.

The demand for trained people for library work is now greater than the supply, and with the increase in the number of libraries which is now going on, due both to generous gifts and to increased public interest, the demand is likely to be still greater. The librarian of the Cleveland Public Library has had frequent requests from different parts of the West and South for suitable persons to fill library positions, which he has been unable to supply. The salaries paid in library positions have been low, but there has been a great improvement within the past ten years in this, and many fair salaries are now being paid. The figures published by the New York State and Pratt Schools show a steady increase each year in the salaries paid to their graduates, and that they readily find positions.

The establishment of a library school would be a benefit to libraries by supplying for their service young men and women who had deliberately chosen this as their life work and had fitted themselves for it in supplementing the liberal education of the college by a severe course of technical training. The entrance of a large number of trained people will raise the standard of work required in our libraries, and

increase their efficiency and value. It would offer particularly to the graduates of the College for Women an opportunity to fit themselves for an interesting and useful work, one which may fairly be classed with that of teaching, which is largely in the hands of women, and which is each year attracting more of those who have enjoyed the best educational advantages.

Among the appointees to the Cleveland Public Library during the past eighteen months have been ten college graduates. One of these is now on leave of absence attending the New York State Library school, and two are applicants for places in the next year's class.

The two sessions of Summer school which have been held in Cleveland in 1898 and 1900, attracted students from states as remote as Florida and Iowa, and the number of applicants each summer was greater than could be received.

From the interest in the work, the experience of other schools, and the applications here, it seems almost certain that the classes would be filled under present conditions, and the increase in libraries seems certain to maintain and increase this demand.

Respectfully submitted,

ALLEN D. SEVERANCE, EDWARD C. WILLIAMS, LINDA A. EASTMAN, WM. H. BRETT.

I cannot bring this report to a close, covering not only the work of one academic year but in a fragmentory and superficial way the work of seventy-five years, without expressing to you my assurance that in the Providence of God and in the guidance of man these Boards have entered into a great heritage and also have put before themselves a rich opportunity. The heritage lies in the bravery, sacrifice and nobility of purpose of the fathers. The opportunity is found in the service which this University and its several colleges already founded, or to be founded, may render to humanity. A bravery and a sacrifice on our part—as brave and as unselfish as moved the fathers—together with our vastly increased power, shall give the fulfillment of our highest aims.

To the Reports of Deans and other officers, and to various documents which are herewith submitted, I beg leave to call your attention.

With great respect, I am

Very truly yours,

CHARLES. F. THWING, President.

Cleveland, 11 June, 1901.

#### REPORT OF THE DEAN OF ADELBERT COLLEGE.

The following table shows the courses as taken for the year 1900-1901:

#### FIRST HALF-YEAR.

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.
Bible	I-Life of Christ				59	3	62
Biology	II—Zoölogy	2	3				5
"	IV—Zoölogy	I	6				7
"I	X-General Physiolog	уІ					I
Chemistry	I—Elementary	. I	I	19	7		28
"	II—Inorganic			I	23	4	28
"	III—Organic			9	1		10
"	IV—Metals	2	7				9
"	VI—Organic	2	4				6
"	VII—Quantitative	2					2
"	VIII—Physiological	I	4			• •	5
Economics	I—Elements	4	22	3			29
"	III—Money	15					15
"	V—Socialism	2					2
English	I—Rhetoric				59	3	62
"	II—Theme Writing			41		I	42
"	III-Eng. Language			19	I	I	21
"	IV—Daily Themes	3	12			2	17
"	VI—Forensics	4	3				7
"	X-English Poets	9	2				11
"2	XI—The English Dram	a I					1
"	XIII—Tennyson	4	7			1	12
"	XV-Am. Literature	3	5			I	9
"	XXI-Old English	2	3			I	6
French	I-Elementary	4	14	17	12	3	50
" {1	III—XIXth Century ) Prose and Drama	5	12	9	5		31
Geology	I-Mineralogy	3	1				4
"	III—Structural	8	8		• •	ī	17

·	WESTERN RESER	VE	UNIV	ersit	Y.		151
Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresb- men.	Special	Total.
German	I—Elementary			••	39	2	41
"	II—Masterpieces				8		8
"	III-Second Year			21	6	2	29
"	IV—Author Course		3	II	2	I	17
	X—Modern German Prose	••	4	2			6
Greek	I—Homer	• •		••	21	• •	21
"	III—Drama			12			12
"	V—Lucian, etc.	2	2		• •	• •.	4
History	I—Middle Ages	3	4				7
"	V-Eng. Const.	5	3	• -			8
"	VI-Amer. Colonies	11	I	I	I	2	16
"	XI—Colonization	24	13	2		1	40
Latin	I—Livy				62		62
"	III—Horace			25			25
"	V-Cicero's Letters	4	2				6
<b>Mathematics</b>	I—Trigonometry		••		60	3	63
"	IV—Algebra			39	I	2	42
**	V—Conic Sections	I					I
44	VIII—Calculus		8				8
44	X—Quaternions	4					4
Philosophy	I—Psychology		40			3	43
"	II—Anthropology	16	12			I	29
"	V—Ethics	<b>2</b> I				I	22
	VIa—Hist. of Philos.	8					8
	XI-Applied Logic	4	Ĭ				<b>5</b>
Physics	I—Mechanics	I	4	22		2	29
	III—Optics	I	1				2
**	IV—Heat	I	• •				1
"	VII—Drawing	3	I				4
"	XI—Roofs & Bridges	2					2
Spanish	Modern Novelists	9	2	••	••	••	11

.

#### SECOND HALF-YEAR.

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh. men.	Special	Total.
Astronomy	Descriptive	2	3	• •		I	6
Bible	II—St. Paul	· •	• •	• •	55	3	58
Bibliography	<b></b>	5	• •	••			5
Biology	I—Elementary	4	I	40			45
"	VI—Histology	1	5	• •	• •		6
"	VII—Embryology	3	1			I	5
"	IX—Gen. Physiology	I	•				I
"	X—Botany	2				I	3
Chemistry	II—Inorganic	1			20	4	25
**	III—Organic			IO	I		ΙI
"	V—Qualitative		10	• •			10
	VI—Organic	1	3				4
"	VII-Quantitative	2					2
"	IX—Physical	2	1				3
Economics	II-Econ. Problems	5	5	3			13
"	IV-Public Finance	I	3				4
	VI—Railroads and Transportation	5	• •				5
English	I—Rhetoric			I	55	3	59
"	II—Theme Writing		2	41		1	44
"	IV—Daily Themes	2	6		2	I	11
"	V—Daily Themes	5	8				13
"	X—Poets	9	4				13
**	XII-Shakespeare	5	4			I	10
"	XIV—Browning	2	7				9
"	XXII-Middle Eng.	2	I			1	4
**	XXX-Elocution	1	2				3
Frenchl	I-XIXth Cent. Fictio	n 4	11	18	12	3	48
	IV-Renaissance Lit.	9	11	9	5		34
Geology	II-Mineralogy	ī					ī
" " …	IV—Hist. Geol.	4	6			1	11
"	V-Physiography	12	2				14
German	I-Elementary				35	2	37
	II-Masterpieces				7		7
**	III—Second Year			20	5	2	27
"	IV—Author Course	2	1	9	2	. <u>-</u>	14
	IX—Modern Prose		I	2		••	3

#### WESTERN RESERVE UNIVERSITY. 153

Cour <b>ses</b> .	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.
Greek	II—Attic Orators		I		19		20
"	IV—Drama		I	12		• •	13
"	VIII—Archaeology	3-	1				4
History	II-Modern Europe	4	4		I		9
"	III—France	13	19	3		• •	35
" {	VII—Pol. & Const. } America	10	3	I	I	I	16
"	X-Amer. Politics	12	9		I	I	23
Latin	II—Plautus	I		I	57		59
**	IV—Tacitus			25			25
"	V-Cicero's Letters	2	I			• •	3
Mathematics	{ II, III—Anal. } Geom. & Mechan. }			I	57	3	61
4.6	VI-Spher. Trig.		3	27		2	32
**	VII—Calculus	2	2	11			15
4.	XI-Diff. Equations	2	6				8
Philosophy .	III—Logic	I	<b>35</b> .			3	39
" .	IV—Introduction	8	18			I	27
"	VIa—Hist. Philos.	6					6
" .	VIIa—Religion	10	1				11
" .	VIIb—Sociology	17	2				19
" .	X—Psychology	6	3			I	IO
Physics	II—Electricity	I	5	21		2	29
**	VIII—Drawing	2	I	••			3
"	IX—Mechanics	2			• •	• •	2
" <b>x</b> —	Mechan. of Materials	4	••	••	••	• •	4

## REPORT OF THE SECRETARY OF THE FACULTY OF ADELBERT COLLEGE.

Nine meetings of the Permanent Officers have been held during the year ending with June 1st. With the exception of a recommendation that hereafter English instead of Latin be used in conferring degrees at Commencement, the only business transacted by this body has related to appointments on the staff of instructors, and its recommendations have already been transmitted to the Board through the President.

The General Faculty, during the same period, has held twelve meetings. The most important action taken is as follows:

Mr. Williams, the Librarian, was authorized to offer an Elective in Bibliography in the second term.

Changes have been made in the required work of the Latin-Scientific Course in Freshman year, in consequence of which one term of Physics and one term of History have been substituted for German. The required work of each student during this year has also been increased by the addition of one hour.

The work in the Gymnasium for Freshmen has been made a regular course and is now required for a degree.

The Sophomore year has been made entirely elective with the exception of one hour a week throughout the year in English Composition, which will continue to be required. In order to avoid the possible evils of an absolutely free choice of studies, all studies of the last three years have been divided into three groups, Language and Literature, Mathematics and Science, Philosophy, History and Social Science, and each student, during his last three years, must take at least four three-hour courses in each of these groups.

The Faculty, after some discussion, has also recommended to the Trustees that, beginning with 1904, the degree of A. B. be conferred upon all graduates of Adelbert College.

The death of Dr. Bushnell, the Treasurer of the University, has been felt as a personal loss by all the members of the Faculty, and a minute expressing their grief and appreciation of his services, has been entered on the records.

Respectfully submitted,

SAMUEL BALL PLATNER,

Secretary.

# REPORT OF THE REGISTRAR OF THE COLLEGE FOR WOMEN.

#### FIRST HALF-YEAR, 1900-1901.

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total.
Anthropol'y.		14	2			2	18	18
Art	Ancient	4	11				15	15
Bible	I—Life of Christ		• •	I	72	4	77	
"	III—The Acts			43		5	48	
"	IV—The Acts	2	36	I		3	42	167
Biology	IV—Zoölogy	I	2				3	3
Chemistry	I-Non-Metals	1	20	12	1	5	39	••
"	II—Inorganic	1	4	3			8	
"	V—Organic	1	3				4	
"	Quantitative	I					1	52
Economics	I-Elements of Econ.	12	I		. •		13	13
English	I—Composition				70	I	71	
	III—Daily Themes	1	2	14		I	18	
"	V—Themes	4					4	
"	IX-Old English	I					1	
"	XIV-Shakespeare	10	IO	I		4	25	
"	XVI—Classicism	2		27	6	5	40	
"	XVIII—Criticism	I				I	2	
"…{	XX—English Poetry 1830-1880	<b>8</b>	I 2	1		2	23	184
French	I—Elementary	2	3	12	46	5	68	
" {	III—Modern Prose and Poetry	} 1	2	15	5	2	25	••
"	V-Classic Drama	1			1	1	3	
"	X-Modern Novelists	14	5	5		3	27	123
Geology	III-Structural	11	7	••		3	2 I	
"	VI—Special	2	••		••		2	23

### WESTERN RESERVE UNIVERSITY. 157

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total.
German	I—Elementary		2	4	19	3	28	
"	III—Masterpieces	5	6	14	5		30	
"	V-Modern Authors	6	6	4	16	2	34	
"	VII—Goethe	5		8	9	I	23	
"	IX-Faust	2	3	2		1		123
Greek	I—Homer				15		15	••
"	III—The Drama	I		8	I	• •	IO	
"	XIII-Lyric Poetry	3	5			1	9	34
History	I—Middle Ages		2	25	26	3	56	
"	V—American Colonial	7	1	4			12	
"	VII—French Revol'n	23	22			6	51	
"	XIV—Bibliography	4	4	1		2	11	130
Italian	Elementary	5	2			1	8	8
Latin	I—Livy			1	68	2	71	
"	III—Horace			32		1	33	
**	V—Pliny		13	I		2	16	
"	VIII—Poetry	14				I	15	
"	Epigraphy	4	I			1	6	141
<b>Mathematics</b>	I—Trigonometry			4	58	2	64	
**	V-Analytical Geom.		I	4			5	
4.6	VII-Integ. Calculus		I				1	70
Music	History of	3				I	4	4
Philosophy .	II—Psychology	5	31	16		6	58	
"	III—Ethics	4	I				5	63
Physics	Heat, Sound	5	3	••	••	••	8	8

#### SECOND HALF-YEAR, 1900-1901.

Courses.	Number.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total.
Art	Hist. of Greek Art	5	11				16	16
Astronomy		2				I	3	3
Bible	II-Life of Christ				65	4	69	
"	V—The Acts	3	30	2		4	39	108
Biology	I-Elementary	2	23	Io	3	2	40	
"	VI Histology	1	2				3	
"	X – Botany	4	2	I			7	50
Chemistry	III—Metals		4	3		1	8	
"	IV—Physiological	2	3			2	7	
"	VI - Organic	I	3				4	19
Economics	II-Applied Econ.	2	1	1			4	4
English	II—Composition			I	67	I	69	
"	IV—Daily Themes		4	4		1	9	
"	VI—Themes	3					3	
"	X-Old English	I					I	
"	XII - Chaucer	1	3	I		2	7	
"…{	XVII – Romantic Movement in 18th Century	}2	I	17	5	8	33	
"…{	XXI—English Prose, 1830-80	}9	14	2	••	5	30	
"	XXIII—Amer. Lit.	11	6	4	••	4	25	177
French	II—Elementary	2	1	12	42	8	65	
" {	IV—Modern Prose and Poetry	}.1	I	10	3	ī	16	
	VI—Drama, 18th and 19th Centuries	} 1	• •	••	4	2	7	••
**	XI—Mod. Novelists	9	3	7	• •	3	22	110
Geology	IV— Historical	7	3	••	• •		10	
"	V—Physiography	2	4	2	I	3	12	22
German	II—Elementary	• •	2	4	20	I	27	
"	IV—Masterpieces	4	5	13	3		25	
"	VI—Schiller	4	2	4	13	3	26	
	VIII—19th Century	5		6	9		20	
"	XVII—Contemporary	3	4	1	••	I	9	107
Greek	II—Attic Orators				16		16	
"	IV—Plato	• •	• •	7	••	• •	7	• •

Courses,	Number.	Seniors	Juniors	Sopho- mores.	Fresh. men.	Special	Total.	Grand Total
Greek {	VIII—Lucian and Aristophanes	}	1	••	I	• •	3	26
HistoryI	I—Europe, 1408-1763		I	22	9	4	36	
"	III—England	20				2	22	
**	VI-United States	4	2	I			7	
" ··{\	/III—Reorganization of Europe	<sup>1</sup> }2	18		. •	3	23	
**	XIII-Middle Ages	I	8	4			13	101
Italian	Elementary	4	2			2	8	8
Latin	II-Plautus, Horace				64	4	68	
"IX	-Catullus, Propertiu	lS		22		2	24	
"	XI—Juvenal		10			2	12	
"2	KV—Teacher's Cours	e Io				2	12	116
Mathematics (Miss Palmié	) } II—Algebra		••	3	27	1	31	
Mathematics Mr. Dickerm's	n } II—Algebra	••		2	29	2	33	• •
Mathematics	IV-Mechanics		2	15	6	7	30	
4.6	VI—Calculus			3			3	
44	{ XI—Theory of } Equations		I				ı	98
Music	Harmony	4	2			2	8	8
Philosophy (2	hrs.) I-Logic		I	18	I	3	23	
" (4	hrs.) I-Logic		I	20		3	24	
44	IV-Introduction	7	12			2	21	
" 1	/III—Psych. in Educ	. 3	3	I		r	8	76
Physics	Light, Electricity	1	3				4	4
Sociology		. 23	2			2	27	27

During the year one important change, to go into effect at the beginning of next year, has been made in the curriculum. All students will be required to take a course in Physics, the character of the course depending upon the nature of their preparation. The students who have completed the Latin-English requirements for admission, and who have therefore already had a course in elementary Physics in the secondary school, will be given a course which takes up the subject where the secondary school

leaves it. The other students will be given more elementary work.

For the Latin-English students the course will come in the first term of their Freshman year, History I being postponed until the second term. For the Modern-Language and Classical students the course will come in the first half of their Sophomore year.

Mechanics and Logic, by this change, become elective studies. Since, for the Latin-English students, the Physics takes the place of some elective course of three hours hitherto open to them in the second half-year of their Freshman year, there will be substituted in place of the Mechanics and Logic, a course in Introduction to Philosophy, to come in the second half of their Sophomore year.

Since allusion was made in this report last year to the pressing need of better facilities for the students who reside in the city and who, nevertheless, are on the campus nearly all day, it may be permitted to express satisfaction that this need has been amply provided for in Haydn Hall, now under construction.

Respectfully submitted,

HENRY E. BOURNE,

Registrar.

### REPORT OF THE DEAN OF THE GRADUATE SCHOOL.

During the current year twenty students, eight women and twelve men, have been at work in the Graduate School. Four of these are graduates of Adelbert College and five of the College for Women, while ten other institutions are also represented. Of the whole number of students two are in the third and one in the second year of graduate study, while seventeen began their work as new students last September. The number of instructors has been thirty-two, the number of courses offered one hundred and thirty. There are seven candidates for the Master's degree at the coming commencement.

In the different departments instruction has been given as follows: In Biology to two students, in Chemistry to one, in Economics to one, in English to five, in French to three, in German to nine, in Greek to one, in History to four, in Latin to one, in Mathematics to two, in Philosophy to six, in Physics to three.

The Graduate Club has continued its work, and was represented, as usual, by its delegate at the annual meeting of the Federation of Graduate Clubs held at the University of Pennsylvania during the Christmas holidays.

From this year's experience it is more than ever clear that the Graduate School is the best medium through which the University can reach the schools of Cleveland. This year an unusually large number of city teachers, while still continuing their work as teachers, have come to us to take an advanced course or two in their chosen subjects and, in general, to profit by the renewed university contact. There is no doubt that through them the university's influence upon the schools of the city is very direct and effective. All possible effort is being made to increase the opportunities of this kind, for it is evident that strong ties of sympathy and interest are being formed by this means.

Our greatest immediate need is a few scholarships for the help of able and worthy students who cannot meet the whole expense of a course of advanced study. There is no doubt that a few such scholarships, judiciously awarded, would yield large returns in the extended influence and usefulness of the university.

R. W. DEERING.

### REPORT OF THE DEAN OF THE MEDICAL SCHOOL.

I have the honor of submitting to you the following report of the Medical Department for the academic year of 1900-01. The total number of students enrolled during the year was 136, divided as follows:

Fourth year class	27
Third year class	37
Second year class	33
First year class	37
Special	2
Total	 136

Of the 136 men in the School, twenty-five, or 18.38% have college degrees, while twelve have had three years of college work, fourteen have had two years, and twelve have had one year, as preliminary training, a total of sixty-three. or 46.32%.

The following states and countries are represented in the student body:

Indiana, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, China, Persia.

Beginning with the current year the completion of the Junior year in a recognized literary college is required for admission to the Medical Department, a condition which will, undoubtedly, diminish the number of students in attendance. The Medical Faculty, however, unanimously believe in the wisdom of this step, and that it will in the near future, if not at once, attract a superior class of students as well as an increasing number. This stamps our school as one of the most progressive in this country, making it the third in the standard of its requirements, Harvard and Johns Hopkins alone requiring so high a standard for admission.

The past year has added very materially to the strength of the medical course. Through the generosity of some friends a new laboratory of Clinical Microscopy and Clinical Medicine and Surgery has been erected and fully equipped. Instruction in this becomes a part of the regular course. For this the Medical Faculty expects, before the opening of the next year, to secure the services of a new man as teacher. A new Department of Histology and Embryology has been formed and Dr. F. C. Waite of the University of Chicago has been elected to this chair, and will begin his course in October, 1901. With two strong men added to the laboratory teaching force the laboratory courses will be greatly increased in efficiency and value.

From a clinical standpoint, likewise, the year has brought added importance to the thoroughness of the course of instruction. The name of Dr. G. W. Crile, as Professor of Clinical Surgery, has been added to the Faculty. side Hospital has just been opened to its full capacity. new isolating building for contagious diseases is now in course of erection and will be ready for service by the next college year. Charity Hospital is adding an entire new surgical wing for the accommodation of female surgical cases, at an expense of \$40,000, increasing the capacity of this hospital by nearly forty beds. This will be ready for service in October next. New dispensary rooms are also being erected for the better accommodation of the important class of out-patients. The City Hospital has just opened its new Children's Building, adding one hundred beds to its capacity. During the past year St. Alexis Hospital has, for the first time, been utilized for clinical purposes. will be seen, therefore, how large and valuable the clinical field for medical training has become.

One of the most, if not the most important event of the year has been the establishment of the H. M. Hanna Research Fellowship in Physiology or Pathology. The

immediate future of progress in medicine lies in the direction of the establishment of laboratories and fellowships of original research work, which will give men the place and the means to carry out original work along scientific lines. The Medical Department of the Western Reserve University should become the great scientific center for such work in the middle West. The buildings, with laboratories, are already here, there are men trained for such work here, there are adequate hospital facilities, and what is needed is endowment to carry out this character of work. No one can foretell the value of a little money as a perpetual fund for this purpose.

The buildings have been put in thorough repair, the roof repaired at an expenditure of \$260, the old worn out plumbing replaced with new, and a new animal house has been erected. Insurance to the amount of \$50,000 has been placed on the main building and contents, \$10,000 on the chemical laboratory building and its contents, and \$1,000 on the Woods monument. Fire extinguishers have been placed on the four floors of the main building, thus materially lessening the insurance rates. Heretofore, but \$10,000 insurance has been carried on the entire plant.

The total receipts from May 1, 1900, to May 1, 1901, have been a little more than \$15,000, and the expenditures during the same time have been approximately \$13,000, leaving enough money in the treasury to pay the expenses during the summer months. Out of a special fund a clerk has been employed at the college building who devotes his time to looking after the business interests of the school, very much to its advantage. A considerable amount of money has been saved to the college by his efforts.

The year has taken from us Dr. H. J. Herrick, Emeretus Professor of Hygiene, and Dr. Wm. H. Nevison, Assistant Professor of Surgery, who was one of the most valuable instructors in the Medical Faculty. His early death has deprived the Medical Department of the services of a most successful teacher.

The future of the school is hopeful. The laboratory departments are well manned, moderately equipped for teaching, but very much needing new apparatus, equipment, and library facilities for doing successful research work. Clinical material has become large, and, for the present, satisfactorily organized, but laboring under the tremendous disadvantage of requiring an unpaid service from the men who give their time to theoretical and clinical teaching. From this standpoint the Western Reserve Medical School is in competition with other schools which pay their clinical teachers from \$1,500 to \$7,500 per year for services which here are entirely gratuitous, and have been since 1893. Harvard, Pennsylvania, Columbia, Cornell, New York, Johns Hopkins, Michigan, Minnesota, Chicago, California, all pay salaries to all of their teachers, none of them less than \$1,500 per year for full chairs, while at Western Reserve only laboratory men receive salaries.

Good teaching in a medical school requires time, energy, thought and the best efforts of any man who will satisfy the intelligent medical student body of today. The necessity for endowment, therefore, is perfectly obvious. The needs of the Medical Department at the present time, are library facilities for scientific research work, additional equipment and apparatus affording facilities for original research work, additional fellowships, affording an income from \$500 to \$1,000 per year each, to enable well trained men to devote their entire time to research work and instruction, and a general endowment enabling the school to pay moderate salaries to its teaching body.

B. L. MILLIKIN.

Dean.

## REPORT OF THE DEAN OF THE FRANKLIN T. BACKUS LAW SCHOOL.

The school year of 1900-1901 has, on the whole, been a very satisfactory year for the Law School. The attendance of the school was the same as that of the year preceding, to wit: One hundred and three. The raising of the standard of requirements for admission to the school has interfered with the numerical growth of the school, but the fact that we hold our own in this respect is a source of much gratification to us. Other law schools on all sides of us have a much lower requirement for admission, and it is natural that many students, who would otherwise come to us, go to these schools. The large and complete library which we now have at the school has provided a great source of strength to us from the standpoint of scholarship. Never before in the history of the school has the library been used so much as it has during the past year. room has proven itself so small that we have found it necessary to use one of the recitation rooms as an overflow for the library during part of the day. This arrangement is, however, very unsatisfactory, as it is inconvenient for students using the recitation room, and it is also impossible to have the same degree of decorum as prevails in the library. The need for an addition to the building which will furnish suitable library quarters has become very urgent and very pressing. We hope that this need will, in the near future, be cared for.

There have been but two changes in our Faculty. Mr. Lee has been obliged, by pressure of business, to give up the course on Common Carriers, and Mr. Harry J. Crawford, who graduated from our school in 1898, has been chosen to give that course. Mr. Feasel, who was our resident instructor, resigned his position on the first of February to accept the position of librarian for the Cleveland Law Library Association, and Mr. J. C. Mansfield, of the class of 1897, was chosen to take his place. Both Mr. Crawford and Mr. Mansfield have done excellent work during the past year.

The standard of scholarship of the school has never been so high as it has during the past year. All the classes have done excellent work, and the entire class that went to Columbus to take the examination in June, passed the examination successfully. We are unofficially informed that two of our students stood at the head of the class at Columbus. For the last two years no official announcement has been made of the standings of the classes at Columbus. During the past few months a number of men in law offices and from other law schools have been urging the Faculty to change our present rule requiring two years' attendance at the school for all graduates for the degree of LLB., but after a full discussion and careful consideration of the question the Faculty is of the opinion that this would lower the standard of scholarship, and that the present rule ought to be adhered to, although we might thereby lose a number of students.

Respectfully submitted,

EVAN H. HOPKINS.

Dean.

# REPORT OF THE DEAN OF THE COLLEGE OF DENTISTRY.

During the ninth session there has been no change in the Faculty except the appointment of J. F. Wark, D. D. S., as Demonstrator of Prosthetic Dentistry. We now have ten professors, four lecturers, and five demonstrators. teaching, as usual, is carried on at both the Medical and Dental College. Attendance, Seniors, 23; Juniors, 34; Freshman, 45; total 102, which is the largest number we have ever had and an increase of 11 over last year. The Freshman class is the largest in number during our existence, which augurs well for a large Junior class next year. The decrease in the number of the graduates this year is owing to the failure of Juniors to pass examinations. obtained a license to practice, others tried, but failed, and one was suspended indefinitely. Including the present class we have two hundred and seventy graduates.

The method of what is called a perpetual ticket, by which a student is allowed to pay the lecture fees of the three years' course at the beginning of the Freshman year, at a reduction of one-sixth, has increased the revenue of the present year, as six have taken advantage of this plan. This is the largest number we have ever had in any year, which goes to show that the department is growing in the confidence of the public.

If we were housed in a new building of our own we would certainly have an increased attendance, and we would have more room for the carrying on of scientific and systematic laboratory and operatory work, thus providing students with an excellent opportunity in all those branches which

bear directly upon all practical operations. We cordially invite our friends to donate specimens for our museum, technical and scientific works for our library, microscopes for our special work, and also money, as unfortunately our receipts have not, in certain years, been as large as our expenditures. An endowed dental department would be exceedingly desirable.

The Bursar reports that we have 102 students; with the exception of nine, each has paid \$100 for lecture fees, and \$10 for examination.

The Faculty have labored hard and harmoniously to establish a college equal to the best, and the following table shows the work required in each year and the number of hours per week for each subject.

#### FIRST YEAR.

HOURS	PER WEEK.
Osteology	2.
Chemistry	5—lectures. 6—laboratory.
Prosthesis	2—lectures. 17 ¼—laboratory.
Histology	
Dental Anatomy	
SECOND YEAR.	
Anatomy—Descriptive	4.
Anatomy-Regional	T.
Physiology $\Big\{$	2—lectures or demonstrations.
Dental Histology and Embryology	I—to Christmas.
Metallurgy	I.
Operative Technics	7—6 months.
Crown and Bridge	I.
Prosthesis, Crown and Bridge Work	10½.
Orthodontia Technics	121/2.
Clinical Dentistry	17½.
Dissection	Evenings.
Dental Pathology	I (not completed).
Bacteriology	

THIRD YEAR.		
Operative Dentistry	2-4 m	onths. onths.
Operative Clinics	171/2.	
Prosthetic Clinics	121/2.	
Pathology—Completed	1.	
Materia Medica and Therapeutics	I.	
Oral Surgery		
Orthodontia	Special	lectures.
Anaesthetics	٠,,	44
Jurisprudence	"	"
Dental Hygiene	"	6.6
Electro-therapeutics	"	**

Respectfully submitted,

HENRY L. AMBLBR,

Dean.

### REPORT OF THE SECRETARY OF THE DENTAL FACULTY.

The College of Dentistry continues to increase in the number of its students. There were one hundred and two students in attendance throughout the present session, which was an increase of eleven over last year. Two students were dropped during the session.

The Dental College has drawn students from various avenues, and it is a pleasure to note that a large percentage of Freshmen were high school graduates; colleges were represented, two from Adelbert College, one of which was a graduate.

The Junior and Freshman classes had seventy-nine students, and of this number seventy-eight are registered for the next session. There are also five new Freshmen registered, and a Junior who is now in the Phillipines. This Junior was a Freshman here, but has served two years in the army and practiced dentistry among the soldiers at the same time. His knowledge, attained while a student in this dental college, proved to be of advantage to the soldiers.

As the outlook for a new building for the Dental College is bright, so, too, the indications for a great increase of students are encouraging.

It is a pleasure to call attention to the regard that the colleges of Great Britain have for our college. Word has just been received that a graduate of our dental college has successfully passed the examinations that entitle him to use the name "dentist" and to practice dentistry regularly, which Americans are not entitled to do without considerable formality and study.

The work of the Faculty has been harmonious and we think that the outgoing class will be well equipped for service.

We added one new instructor to the list of teachers, and Professor Wilson was not engaged in the laboratory instruction this year, as formerly. Discipline among the students has always been good.

A Y. M. C. A. Department was started and its work had a very good effect. Meetings were held each week in the college rooms. At one meeting over sixty students attended. Social parties were given occasionally in the college, and these promote the love for the college among the students and their friends.

We are now looking forward to a new building wherein the greater possibilities of a Faculty may be tried and the opportunities of students be facilitated. Here is a grand chance for some one of means to endow the college with equipment and means for the fullest conception of a modern dental college.

Very respectfully submitted,

W. H. WHITSLAR,

Secretary.

### REPORT OF THE LIBRARIAN OF ADELBERT COLLEGE.

No gifts of money have been made to the library since our last report, but the expenditure of Mr. and Mrs. Mather's gift of December, 1899, has enabled us to add more volumes to the library than have been added during any previous year, with the exception of 1887, when the Scherer Library was acquired. As has been stated in a previous report, no attempt has been made to expand along any new lines, but the effort has been rather to strengthen departments already existing. During the year 3,302 bound volumes, and 936 unbound books and pamphlets have been added. This is exclusive of the books of Dr. Jared P. Kirtland, which were deposited by Mrs. Caroline P. Cutter in the Biological Laboratory, in November, 1900. This library numbers 2,160 bound volumes and 109 unbound books and pamphlets, exclusive of many odd numbers of periodicals.

The additions for the year are as follows:

	Bound Volumes.	Unbound or Pamphlets.
By gift	524	<b>69</b> 0
By purchase	2,778	246
	<del></del>	
Total	3,302	936
Kirtland Collection	2,160	109
Volumes in library, May, 1900.	37,709	
	43,171	

The departments which have received the largest number of additions are History, Economics, Music, English and Astronomy. Among the additions to the History Department, worthy of note, are Provincial, Town and State Papers relating to New Hampshire; Early Records of the Town of Providence; Recueil des historiens des Gaules et de la

France; Calendar of State Papers-Colonial Series; Jahresberichte der Geschichtswissenschaft; and B. F. Stevens' Facsimile of the British Headquarters Map of New York, 1782, the last a gift of the Hon. John Hay. Since the publication of the last report we have practically succeeded in completing our set of the Massachusetts Historical Society Collections, as but one volume is now needed. Other additions of note are Journal für Reine und Angewandte Mathematik, Vol. 1-97, completing the set; Revue de métaphysique et de morale, 6 vols.: Archiv für Entwickelungsmechanik der Organismen. 7 vols.; Zeitschrift für Krystallographie und Mineralogie, 31 vols.; Zeitschrift für physiologische Chemie; Jahrbuch für Photographie und Reproductionstechnik, 13 vols.; Studi di filologia romanza, 7 vols.; Revue des langues romanes, 42 vols.; Publications of the Shelley Society; Publications of the Shakespeare Society: La Grande Encyclopédie, as far as published; Bartolomeo Borghesi-Oeuvres complètes, 10 vols.; Graesse-Trésor de livres rares et précieux, 7 vols.; Roorbach—Bibliotheca Americana; Kelly-American Catalogue; Jöcher-Allgemeines Gelehrten-Lexicon.

An addition of special interest in this anniversary year is a collection of 118 volumes bearing the bookplate of the Erie Literary Society. These volumes were presented to the library by Mr. Peter M. Hitchcock. In response to a request sent out in March, 1901, in the form of a circular letter, many volumes have been received as contributions to a collection of the publications of the alumni and professors of the college. This collection was on exhibition during commencement week. It is impossible, at this time, to give the figures in connection with this exhibit, as books are still coming in.

The library of Dr. Kirtland, of which we have spoken above, is particularly strong in horticultural and agricultural literature and periodicals, in conchology, entomology, the older works on natural history, and in local history and

travels. One of the many valuable works in this library is a fine copy of the famous 1807 edition of *Joel Barlow's Columbiad*, one of the most perfect works, typographically, ever issued from an American press.

Following is a list of those to whom we are indebted for gifts of books during the past year:

	Bound.	Unbound and Pamphlets.		Bound.	Unbound and Pamphlets.
Adelphi College	_	ī	Carleton College	_	_ ı
Agricultural College of			Carnegie Free Library,		
Utah		I	Allegheny		I
Alfred University, N. Y.		I	Carnegie Library of		
Allegheny College		1	Pittsburg		1
American Humane As-			Case School of Applied		
sociation		I	Science		1
American National Red Cross Relief Commis-			Cathcart, W. H Central Pennsylvania	r	
sion		I	College		I
Amherst College, Mass.		I	Centre College, Ky		2
Andover Theological			Chicago Board of Edu-		
Seminary		1	cation		r
Antioch College		I	Civil Service Reform		
Armour Institute of			Association of New		
Technology		I	York		3
Atlanta University		I	Clark, Mrs. J. G	I	
Balch, T. W	1		Clark University, Mass.		2
Baldwin University		I	Cleveland College of		
Baltimore College of			Physicians and Sur-		
Dental Surgery		I	geons		I
Barber, G. M	2		Clisby, V. W	I	
Barringer, P. B		1	Coe College		I
Bashforth, Francis		I	Colby College, Maine		I
Beloit College		I	College for Women—		
Berea College, Ky		I	Class of 'or	I	
Bethany College, W. Va.		I	Collins, J. V		I
Bingham, Rev. J. F	I		Colorado College		I
Boston Public Library	I	I	Columbia University,		
Bowdoin College		3	N. Y		2
Brown University		2	Columbian University,		
Bryn Mawr College		I	Wash	I	2
Burrows Bros. Co	_	I	Conant, W. C	I	
Burton, N. S	I		Congregational Associa-		
Burton, T. E	2	4	tion of Ohio		I
	II	101	Connecticut State Board		_
Canada — Geological	_		of Charities		I
Survey	I	_	Cornell College, Iowa		I
Canisius College, N. Y.		I	Cornell University, N. Y		I

Hay, John .....

WESTERN RESERVE UNIVERSITY.

177

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		Unbound and Pamphiets.			를 를
	Bound.	g g d		Bound.	p d
	Se .	P. S. F.		2	F. E.
Meylan, F. T		I	Philippine Information		
Michigan — Geological		-	Society		12
Survey	2		Phillips Academy, Mass		I
Michigan College of Mines			Platner, S. B	I	17
Mines		I	Polytechnic Institute,		•
Middlebury College		I	Brooklyn		1
Mills College and Sem-			Potwin, L. S	2	
inary		I	Pratt Institute		I
Montfort, F. C	I		Presbyterian College of		
Morgan, G. H Morley, E. W		1	South Carolina		T
Morley, E. W		39	Princeton University		1
Morris, F. H		3	Radcliffe College		I
Mount Holyoke Col-		•	Reserve Board, 1901	I	
lege, Mass		I	Ripon College, Wis		2
Mount Union College		5	Rollins College		I
Muller, W	8		Russell, C. M	2	•
Munson, Miss Nellie	I		St. Benedicts' College,		
National Civil Service			Kan		I
Reform League		I	St. Charles College, Md		I
National University		I	St. Ignatius College		1
Nebraska University		I	St. Johns College, N. Y.		I
New Jersey—Geological			St. Louis Mercantile		
Survey	4		Library Association.		I
New Orleans College of			St. Louis University		I
Dentistry		I	St. Olaf College, Minn.		I
New York (State)	27	3	Schade, Rev. A	I	
Niagara University		I	School of Mining, King-		
Northwestern Univer-			ston, Ont		I
sity		4		2 I	
Norton, S. A	3	2	Scudder, J. W	I	_
Norwich Free Academy		I	Severance, A. D		10
Ogden College		I	Seward, G. F		1
Ohio Medical University		1	Shibley, G. H.		I
Ohio State Archaeolog-			Sollmann, Torald		I
ical and Historical	_		Sound Currency Com-		
	2	_	mission of Reform		
Ohio State University		5	Club, N. Y	I	
Ohio University Ohio Wesleyan Univer-		I	South Carolina College. Southwest Kansas Col-		I
		2			
sity Olivet College		I	State Charities Aid As-		•
Otis, P. A	I	•	sociation of New York		4
Packard, R. M	I		State University of Iowa		4 I
Paine, H. E	ī		Stechert, G. E		ī
Peace Association of	•		Swarthmore College		i
Friends, Philadelphia		1	Swift, M. I	1	•
Pennsylvania Prison		•	Syracuse University,	-	
Society		1	New York		2
		-			_

### WESTERN RESERVE UNIVERSITY. 179

Bound	Unbound and Pamphlets.		Bound.	Unbound and Pamphleta
Terry, T. B 2	I	University of		
Thiel College	I	" Washington		1
Thorndike, A. H	I	" Wisconsin		4
Thwing, C. F 6	27	University School,		
Tower, O. F 2	4	Cleveland		I
Trinity College, Conn	I	Van Ness, W. C		I
Tufts College, Mass	I	Vassar College, N. Y		I
Union Theological Sem-			12	25
inary, N. Y 1		Washington & Jefferson		
United States Govern-		College		I_
ment 85	32	Washington & Lee Uni-		
University Club, N. Y I		versity, Va		I
University of		Wesleyan University,		
Alabama	I	Conn		I
Dunaio	I	Wesleyan University,		
Cincinnati	3	Ohio		2
Colorado	I	Western Reserve Histo-		
michigan	4	rical Society		I
Willinesota	3	Western University of		
Nedraska	3	Pennsylvania		I
Mem previou	I	Weston, S. F	9	22
Oregon	I	White, J. G	2	4
remisylvania	I	Whitman, F. P	2	_
Rochester	2	Williams College, Mass	_	2
South Dakota	I	Winchell, W. H	2	_
South ii Camornia	I	Wittenberg College Woman's Medical Col-		1
State of Missouri.	I			
" Utah " Vermont & State	τ	lege of Pennsylvania.		1
		Yale University	•	.3
Agricul'l College	Ι.	Young, C. A	3	14
" Virginia	I			600
		5-	24	690



Beginning September 18, 1900, the library was open in the evening from 7 to 9:30. This is the first time that the experiment of evening opening has been tried. The attendance at first was very light, but increased after Thanksgiving, and has been perhaps sufficient to warrant another year's trial. During this year we have had the services of Miss Edith L. Eastman as cataloguer, and have been enabled, in consequence, to do much more cataloguing than usual, though the amount of routine work incident to our large purchases of books has prevented us from attempting any revision of the catalogue. However, for the first time in the history of the library, subject cards have been written for all books, with some attempt at system.

One evening in each week the members of the library staff have met for the discussion of various questions in library economy. In September the librarian gave an hour's talk on the library to the Freshman class of Adelbert College and of the College for Women, and in the spring term an elementary course of one hour per week in national bibliography was given to five members of the Senior class.

Our relations with the Public Library have been most pleasant, and we have again to thank Mr. Brett and his assistants for their constant effort to serve us. A much larger number of books has been delivered at Hatch Library than in any previous year, and the daily messenger service between the libraries has been a great convenience.

The experience of this year proves the need of more shelving in the reference room. This need could most easily be met by the erection of wooden floor-cases in the end of the room, now little used by the students. Cases with a capacity of 3,500 volumes could be accommodated here, and the stackrooms thus relieved of a number of large sets which properly belong in the reference department. Several sets of periodicals now shelved in the lower end of

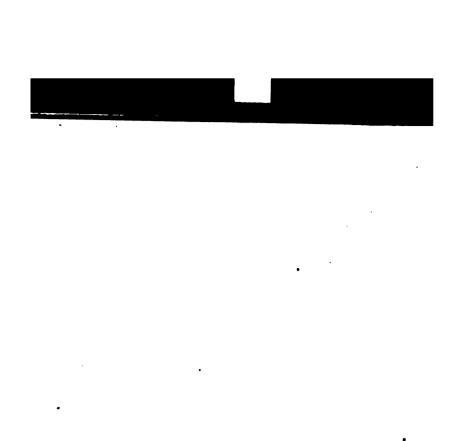
the room could be removed to the new cases, leaving more space for "reserve" and reference books. The accommodations for serials in the periodical room have been entirely outgrown. The two cases contain compartments for 116 periodicals, and the library now receives more than 200. Two small cases, erected on either side of the bay-window. would satisfy present needs. Another need which has been mentioned more than once in these reports, is that of a binding fund. Since our last report the sum of \$425 has been spent for that purpose, exclusive of the sum spent for books bound abroad. No additions to library funds have been made this year, all funds available last year have been divided among the departments, and the amount devoted tobinding was soon spent. A large number of volumes are now ready for the bindery, and there is no money available. Owing to the rapid increase in the number of serial publications taken by the library, the amount needed for this purpose grows from year to year, and it is to be deplored that such a large part of the money given for the purchase of books should have to be diverted in this way.

After four years of faithful service as assistant librarian, Miss Caroline E. Waters has resigned her position in order to devote a year or two to the study of library methods. Miss Esther M. Crawford, head cataloguer of the Dayton Public Library, has been elected to succeed Miss Waters, and will enter upon her duties in September, 1901.

Respectfully submitted,

E. C. WILLIAMS,

Librarian.



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# Stern Reserve University

# REPORTS OF THE PRESIDENT AND FACULTIES.

1901-1902.



CLEVELAND, OHIO.

Issued Bi-Monthly by
WESTERN RESERVE UNIVERSITY,
2420 Fuelid Ave

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# Western Reserve University.

## **REPORTS**

OF THE

President and Faculties.



1901 - 1902.

CLEVELAND:
PRESS OF WINN & JUDSON,
1902.



### TABLE OF CONTENTS.

Report of the President,	3
Report of the Dean of Adelbert College,	59
Report of the Secretary of the Faculty of Adelbert	
College,	63
Report of the Registrar of the College for Women,	64
Report of the Dean of the Graduate School,	68
Report of the Dean of the Medical College,	71
Report of the Dean of the College of Dentistry,	77
Report of the Secretary of the College of Dentistry, .	<b>7</b> 8
Report of the Director of Physical Training, College	
for Women,	83
Report of the Librarian of Adelbert College,	85

# ANNUAL REPORT OF ADELBERT COLLEGE OF WESTERN RESERVE UNIVERSITY AND OF WESTERN RESERVE UNIVERSITY, 1901-1902.

#### To the Honorable Boards of Trustees:—

I have pleasure in submitting my report for the academic year of 1901-1902.

It becomes my duty to record the death of our associate, Mr. Jarvis M. Adams, on the 4th of March. Mr. Adams became a member of the Board in 1894. In a large part of the period since his election illness has prevented his assuming the duties of actual membership. But for the years previous to his membership he had been the personal and legal adviser of Mr. John L. Woods, a member and a great bene-In giving a sum hardly less than \$500,000, Mr. Woods called to his aid, as counsel, Mr. Adams. It was in no small degree through Mr. Adams's wisdom that a gift of \$150,000 for the endowment of the Medical School was so free from restrictions, and yet so carefully adjusted as to represent the lasting needs of the school. Mr. Adams's mind embodied the qualities of comprehensiveness, justice, patience, and persistence, qualities which are especially valuable in a trusteeship.

The number of students in the various departments of the university has been as follows for the last ten years:

	Adelbert College.	College for Women.	Graduate School.	Medical School.	Law School.	Dental School.	Total.
1892–93	100	85	4	193	24	21	427
1893-94	124	IOI	10	97	32	31	395
1894-95	132	108	16	105	38	53	452
1895–96	142	128	13	135	41	53 86	512
1896-97	162	128	27	127	68	86	598
1897–98	186	146	25	127	88	91	663
1898-99	182	183	25	109	106	96	701
1899-00	193	171	17	144	IOI	91	717
1900-01	198	210	18	131	102	102	761
1901-02	206	222	16	126	100	113	783

The number of professors in these various departments for each of the last ten years has been as follows:

	Adelbert College.	College for Women.	Graduate* School.	Medical School.	Law School.	Dental School.	Total.
1892–93	26	13	20	24	7	11	IOI
1893-94	17	15	26	23	10	11	102
1894-95	18	16	30	28	16	14	122
1895-96	18	16	24 ·	28	15	14	115
1896-97	25	16	26	33	17	15	132
1897-98	29	19	27	35	19	16	145
1898-99	<b>2</b> 6	29	33	39	20	22	169
1899-00	27	26	31	48	23	21	17 <b>6</b>
1900-01	26	25	31	57	20	. 21	180
1901-02	26	26	32	70	17	20	191

<sup>\*</sup>Largely the same teachers as in the undergraduate colleges.

How many hours of instruction should a teacher give each day? is one of the most serious questions which enter a Board, or the Faculty can present to itself.

I beg leave to submit at length the replies made by our associates of the teaching staff to this question. The question regarding the number of hours of instruction and of teaching work offered is of great importance, not only to this University, but to every university. The present is the fullest statement ever made by the members of the teaching staff to its governing board upon the question discussed.

The first letter submitted is from the head of the department of physics. A definite answer to your question as to the proper number of hours of class-room work is difficult to give, on account of the number of conditions involved. The problem is, to proportion the number of hours so that the college may find itself well served in the matter of teaching, yet that the instructor shall not be prevented from exercising his other proper functions as a member of a college faculty.

Such functions may be

#### 1. Original Research.

In a university this is the most important duty of the heads of the departments, and is recognized as such. Thus, to mention a few examples only, at Harvard, T. W. Richards was relieved this year from all teaching beyond three lectures per week, that he might devote his time to research: Michelson at Chicago lectures three or four times a week, leaving even the management of the laboratory to his associates; Rowland at Baltimore lectured from three to five times a week, and the general care of the laboratory to others. Even in an institution like this, where the University idea is not greatly emphasized, and where the fundamental duty of the members of the faculty is teaching, if there were on the faculty a man of great original power, I believe the interests of the college would be best served by relieving him largely from routine work. The inspiration of enthusiasm and example, with the reputation accruing to the college, are worth in such a case more than many hours of teaching. Of course this applies only to a very few, yet it applies to all so far as this, that he who stands still is going backward, and that it is a good thing for every member of a college faculty to have by him some piece of original work of more or less moment, or at least work of his own of such a character that he may be stimulated to keep up with the literature of his subject in something more than a perfunctory way, and that his teaching should not be so heavy as to interfere with reasonable prosecution of that work.

#### 2. Committee work.

Much of the detail of college management is in the hands of the faculty, and most of this falls to a few members who happen to be appointed on the more important committees. This committee work requires much time and not a little thought. It should be taken into account in determining the proper number of hours to be devoted to teaching.

#### 3. Special departmental needs.

To assume that each department makes an equal demand upon its teaching force is to ignore obvious facts. The actual class-room and recitation work in teaching a science, the amount of written work to be criticised, the literature to be followed, compare favorably with that in other departments, as language, history, mathematics. In addition, the teacher of science has the laboratory. The administration of the laboratory itself, the devising of experimental work for the students, the provision of proper apparatus and materials, the keeping of the whole material equipment in a state of efficiency demand much time and attention.

It is difficult or impossible to lay down any rule of service which should be fair to all departments and to all individuals. As an illustration of this the work of the department of physics for the present year is summarized below. It will be seen at once that no definite statement is possible of the number of hours of instruction.

In each half-year, seven or eight courses were given in the department. Most of these were laboratory courses, and if we adopt the very moderate estimate that three hours of laboratory work may be reckoned as equivalent to two hours of class-room work, would involve twenty-four to thirty hours of teaching by the two instructors in the department, the amount differing somewhat in the two terms. Many experimental lectures were also given, involving far more in the way of preparation than any recitation.

But several of our courses are almost entirely experi-

mental, involve no text-book at all, and each student is treated as an individual, coming in to work when he has an hour or two to spare. This practically puts the instructors at the service of the students, and keeps the laboratory open all day and every day. We have had, for example, no busier time than Saturday afternoons, which are generally considered as holidays.

Among the individual students noted above have been three graduate students who have come almost at their own times, and have received assistance when needed, amounting to many hours in the course of the year. While we are making no especial effort in this department in the direction of graduate work, it seems advisable, and valuable, to put our resources at the disposal of those who are able to make good use of them.

In my judgment such arrangements as described above are the most profitable, so far as the physical department is concerned, for the college and for the students, but it is not possible to evaluate them in terms of hours of class-room work.

The second letter submitted is from a member of the English department.

The number of hours to be given by each instructor in a department should be left as far as possible at the discretion of the head of the department.

Twelve hours a week, the amount which I have understood to be expected of an instructor here, seems reasonable as a general estimate in a college somewhat hampered by lack of funds. No such standard, however, can be rigidly applied. Some subjects, such as chemistry, mathematics and modern languages, require little preparation by the instructor and little nervous effort in the class-room; lectures before large classes require a good deal of both. I do not think any estimate of hours is of much value except for the information and guidance of new instructors.

The fewer hours of teaching a man has, the better he will teach and the more time he will have for study. Whatever is needed in the personality of a good teacher, he must be a student and he must know something outside of his courses in hand.

During my four years of service I have averaged from sixteen to twenty hours of class-room work a week. In addition, a great deal of time is taken by consultations with students on matters only slightly connected with courses of study. While I do not think this amount of work has caused any loss of flesh, it is more than any reasonably intelligent and ambitious man ought to have assumed even under the temporary exigencies which seemed to require it.

The following letter is from a teacher of history:

It is not an easy matter to answer the question as to how many hours class-room work should be offered each week by members of the teaching staff. However, after considerable thought upon the subject, it seems to me that the following principles may be laid down:

First. All branches of study do not make the same demands upon the instructor. A recitation from a text-book does not call for the same preparation on his part as a lecture. The same is true in linguistics. The teacher of Latin, Greek, French, German, etc., can read at sight a lesson which seems most difficult to his pupils. A lecture, once prepared, is easier to deliver than it is to conduct a laboratory exercise, or a Seminar.

Second. It is an easier matter to keep abreast of some subjects than others. A teacher must be continually on the alert to learn of the latest discoveries in the realm of the Natural Sciences. The teacher of the Classics and of History should also be wide awake; but their facts are, so to speak, "all in," while such is not the case in Chemistry and Physics.

Third. It will, I think, be agreed to by all that the teacher who wishes to be a success in his profession, must do original work. If he does not, he sooner or later stagnates, and his pupils will quickly perceive that his teaching is of the perfunctory sort. The instructor, who is also an investigator, draws from a living spring, while he, who simply reads old lecture notes, gets his inspiration from a stagnant pool. It is the recognition of this principle that has placed the German Universities in the fore-front of scholarship. There the professor is primarily an investigator, and secondarily a teacher.

Now, no teacher is in a condition to conduct independent investigation who is worn out with an undue number of hours of class-room work. In Germany the principle is "Not how many are the hours of teaching, but how good is the instruction?" The striving after bigness has been called "the American vice." The quality, not the quantity of teaching, is what should be insisted upon. It is precisely the wise recognition of this principle in the past by those who have been placed in charge of the affairs of Western Reserve University that has given to the institution an enviable academic standing, and has enabled it to furnish teachers to larger universities.

I am persuaded that it is a wise generosity on the part of trustees not to demand class-room work of their professors up to the limit of their time and strength. Let teachers be called upon for a reasonable amount of instruction, and then—as is the case at Western Reserve—let the sentiment of the university expect of its professors the evidence of devotion to their studies in the form of books, magazine articles, addresses, etc.

Therefore, in view of the above considerations, I am inclined to think that the maximum of class-room work required of professors should be twelve hours per week, and in individual instances, where teachers are conducting im-

portant original investigations, it may be the part of wisdom to demand even less.

A teacher of political science says:

I do not think it possible to establish a general rule or principle in respect to the number of hours that an instructor should give to class exercises—in the sense of a definite quantity. The principle is a function of several variables and the general statement is that he should so occupy his time as to serve two purposes, which are both the proper purposes of a university, viz: (1) efficient instruction in his department; (2) advancement of learning. Obviously the number of hours for class work will vary with different branches of work and with instructors of different degrees of learning.

Speaking of work with which I am familiar, i. e., in my department, and for the average instructor, I should say, as a rough approximation that for genuine post-graduate work six hours a week is enough if the work is properly varied; for undergraduate work of "standardized" courses from ten to twelve. The inexperienced teacher or the man who is making real and extensive contributions to science should not undertake so much. These estimates are based on the hypothesis that the corps of instruction is adequate to the work that is attempted.

A professor in the German department in answer to the question writes:

Let me say, first and in general, that, to my mind, the relation of the college to its teaching staff is not and ought not to be the relation of employer to employees in any ordinary sense of these terms. The college professor is not and ought not to be a wage-earner, who is hired to do so many hours of work for so much money. Such construction of his service seems to me unjust to one of the noblest professions. It would be equally right, I think, for a great church to employ its pastor at so much a sermon. As I conceive it, the relation of the professor to the college is rather one of trusted stew-

ardship; the college gives him his living, and, in return, he should give the college the service of his life—a service, which, like the pastor's service, is not to be measured by class-hours or lectures. You know, of course, how large and important and necessary a part of the professor's service lies outside of his work in and for his class-room. I consider these varied obligations just as much a professor's duty as his class exercises.

Regarding these class hours let me say, and again in general, that I think a professor ought to teach as much as he can, that is as much as is consistent with the greatest effectiveness in his work,—which means again as much as his strength and comfort will allow. For his own sake and especially for his work's sake, he should attempt no more. To overtax his strength, to make him uncomfortable in his work is worse for the work than for the man. In an emergency many things are possible, but, year in year out, it is my experience that no man in any business does effective work who is driven beyond the point of reasonable comfort. No great work was ever done without the enthusiasm of the worker behind it. From the standpoint of the work alone, teaching many hours is hurtful. The most earnest teacher has just so much power and vitality and effectiveness-if that be divided among many classes, each gets but little and likely less than it ought to get. Many hours of teaching may not be burdensome to a mere drillmaster, who mechanically "hears lessons" and listens to students "recite" and knows the book he is "teaching" and no more, but such a system is impossible to a college professor, if he is the intellectual leader of his students that he ought to be. Many hours have long meant poor teaching in our schools and would mean no less in the colleges. The experience of all our better institutions shows that high quality and great quantity are not compatible in their work.

In preparing for his classes the schoolmaster "looks

over his lessons for tomorrow," but the college professor, who deserves the name, does not teach the same things year after year and must have time for study, real, deep, continued study, study that will keep him abreast with his subject, that will make him a larger man, and give him a real and vital message for his students. Like the effective preacher, the real teacher may not, must not teach from "his barrel." be a vital teacher one must be a leader, not a follower-and that is possible only to the man who has time for original investigation. The greatest university teachers are the original thinkers with time for their research. It is the college, too, not merely or primarily the man, that reaps the reward of such work. Goodwin is not great because he is (or was) at Harvard, but Harvard has become great because Goodwin and others like him have worked there. If German universities outrank American, it is because the conditions of productive scholarship are favorable there and unfavorable here, for it is always true that the men make the university, not the university the men.

Turning from such general considerations, upon which my answer to your question is based, let me say that, in my judgment, a professor, charged with the administration of his department and the routine business of the faculty, ought not to undertake more than twelve hours of teaching a week. Our better institutions have seen the wisdom of asking less. An "instructor," without these responsibilities and at work largely in lower classes, might do a little more, though his work might not then be what it should be. As to the "principles that should rule," I will say that I think we might well be guided:

- 1. By the experience of our best institutions. They have worked these problems out before us, and the methods that brought them success will also bring us success.
- 2. By the united judgment of our own faculty. Here are earnest, honest men, willing to give their lives to the col-

lege in return for the living the college gives them. They do not, will not shirk their duty. I believe their judgment is of value in determining how much a man can teach—to teach as should be taught.

Pardon this long letter. Your question is so important to college men and of such vital concern to college work, that I trust you will excuse the great length and the great frankness of my reply.

A professor of philosophy says:

In reply to your question as to "the amount of teaching which it is right for a member of the teaching staff to give," I would say, (1) that no general answer can be given. There are questions of quality of teaching and complexity of subject taught. Then, too, is the teacher to give his whole time to teaching or to take some time for the life of a good citizen? (2) The only rule which has any appearance of generality, so far as I am able to discover, may be stated as follows: The amount of teaching required should decrease in proportion as the complexity of the subject taught increases. Thus the mathematical, the experimental and the philosophical indicate an increasing order of complexity. (3) Basing an opinion on what is actually done in Universities at home and abroad, I would say that the amount of time in philosophical teaching should not exceed (as a rule) twelve hours per week. In their judgment quality is regarded as of first importance. In the German Universities and in many of our own the teaching of philosophy does not exceed nine hours per week.

Another professor of philosophy writes:

The number of hours that a teacher should spend in the class-room depends very largely upon the kind of teacher that he is supposed to be. If it is understood that his business is to "hear lessons," I do not see any reason why he should not hear nearly as many of them as they do in the public schools. If he is expected not only to hear them but

to make the books out of which other people hear them, his hours of teaching must be fewer. If he is not only to conduct classes and make text-books but also to make important contributions to his subject, the classes must be fewer still. Under the conditions which have existed here for the last seven or eight years the members of the faculty have produced between them a large number of text-books and they have been able to make a few important contributions to science. Thus we stand about midway between the best institutions for productive scholarship and the worst. we have more teaching to do in the future than we have had in the past we must get nearer the worst; if we have less we may hope to get nearer the best. But even if a man publishes nothing at all it must not be assumed that in the class-room he is only hearing lessons. To keep in touch with the development of one's subject and to make lectures which are at once clear, interesting, and stimulating is no easy task. Stanley Hall tells us, for example, that he spends four hours every morning preparing for his noon lecture.

I do not think that much more than this can be said without going into detail. If one is teaching the elements of a well-organized subject like Latin or Mathematics he should be able to do more teaching than if the subject and methods of teaching it are not well-organized. If one's subject is concrete like botany or anatomy he ought to be able to teach more hours a day than if it is abstract like economics or philosophy. Due allowance should be made for time spent in assembling apparatus, in conference with students, and in graduate work, no matter how small the number of students in the graduate classes may be. sonally I can teach from nine to twelve hours without its being too great a burden if I am in fairly good condition at the beginning of the year. If I were expected to spend more time than that in the class-room I should consider it very unfortunate.

An instructor in the department of philosophy says: I fail to find any one principle that might serve as a standard for the number of hours' instruction given by each member of the teaching staff. Ultimately it must be left to the honor and judgment of the head of each department. That is, as a teacher in Philosophy I feel quite unable to give any principle for the governing of other departments besides the one that each officer try to make his instruction in quantity and quality as efficient as possible.

Regarding the courses in Philosophy, and perhaps the same is true in other courses, there are four questions that should be considered. First, no one should attempt to give in the same term more than three different courses. If he did so, it would doubtless mean a serious depreciation in the quality of his work, due to scattering his thought and study. No doubt concentration holds good of instruction in the same way and nearly to the same degree as it does in research-work. Second, no more than an average of two hours' instruction each day should be asked of any instructor; and then no more than two advanced courses should be given. Third, really to teach Philosophy or Psychology an instructor must have time for reading properly the most important parts of the literature of his subject; and it takes a great deal of time to do this. Especially is that true when one adds, he as philosopher should keep in touch with all the general problems and events of the day both in the scientific world and in the world of practical life. Fourth, he should do and always be doing some independent thinking, research and writing while he teaches.

Of course the third statement is in part true of any subject and the fourth is certainly true of most. But however that may be, to teach Philosophy that is more than mere words, an instructor must have done a large amount of studying and thinking; and both take time. In Philosophy there are very few courses that can be properly pre-

pared in less than five years and many should take ten. This generally means an instructor must repeat such a course five times or more before it can be truly mastered. If there is anything disheartening to a true teacher, it is to be forced to give over and over again superficially prepared, courses; and often the fault is not his if he does do so. The higher college and university courses should be masterpieces. For them to be so requires not only a master but also long preparation; and for them not to be so means that an institution employing an able man is at the same time utterly discouraging and dwarfing him.

A professor of Greek in answer to the question says: It seems to me that the principle which "should rule in determining the number of hours of class-room work we should offer each week" is this: Each professor should see to it that the work of his department is properly done. If he thinks it is properly done in one hour a week, then that is all the teaching to be expected from him. thinks the work demands, say, sixty hours, he may properly be expected to do as much as his health and strength enable him to do well, and to employ such assistants as the trustees can supply. In other words, there should be no rule in respect to numbers of class-room hours, at least so far as the professors are concerned. When an instructor is asked to come here, he naturally wishes to know beforehand what will be demanded of him. He cannot be expected to devote himself to the building up of a department, the work of which he cannot direct, in quite the same spirit which the head of the department would naturally show. Instructors should therefore have some information given them, and on the whole it seems to me that twelve hours a week is about what should be expected. At Harvard the young instructor is expected to teach ten hours each week. Our institution is poor, so we must get more work out of our teachers. But a person who is willing,—except as a temporary expedient,—to teach college classes much more than twelve hours a week shows that he is willing to forego all prospects of improving his own intellectual equipment for his work, and that shows that he is not the proper man for a position as teacher in a college (except as a temporary makeshift).

The professor of Biology writes:

Aside from any ideal or special policy which may be adopted here or elsewhere, the following general principles should find ready assent: Every Collegiate or University teacher or, at least, every one who represents some branch of its instruction, should be an active worker, and in some degree a recognized authority upon his subject. No idler or time-server should be tolerated. In periods of stress from whatever cause, every University officer should serve as many hours in teaching or in any kindred capacity as the conditions may render necessary.

I think you will agree that a University or College must be governed by one of two divergent policies when it does not try a middle course. (1) It may be conducted as an advanced Preparatory or High School, (or even as a German Gymnasium), of which we need not go far for examples, and as such it might lack neither in pupils nor instructors. Its teachers would be drill-masters, each teaching so many hours daily, with no time or energy for the higher studies, and probably with no inclination, training or aptitude for their pursuit. Such conditions tend to reduce scholarship to the plane of mediocrity. (2) On the other hand the best universities of the world from Bologna and Padua to the present time have been primarily seats of learning and culture to scholars, young and old. Possibly we should add that in recent times many have become centers for the cultivation of athletic sports as well.

The better universities use their class-rooms, libraries and laboratories not only to impart information, but to teach students how to get it for themselves. The college student

must have greater freedom than he has hitherto possessed (even if some abuse it), and must be taught by precept and example to help himself. Our young men and women, it is true, come to our Colleges with immature and often poorly disciplined minds, and the hardest task of the College teacher is to guide them to the proper use of books and other tools, and to get them to work with a certain degree of independence. Nevertheless this task cannot be set aside. The teacher on the other hand must strive to keep abreast of his subject, and to do this requires time and a certain degree of freedom. If incompetent or untrustworthy, or if he have no ambition to excel in his work, no reputation to maintain abroad as well as at home, or is content to vegetate on capital early required, I think we should agree that he is out of place on a University staff.

My own feeling has been that while the endowment of this College was insufficient to afford its teachers the same freedom for scholarly work which is to be found at the Johns Hopkins, Columbia, and many of the larger and better endowed American Universities, an enlightened policy was pursued, and that the teacher's duty did not end in the class room. I have felt that from twelve to fifteen hours of class room and laboratory work was enough to expect from an officer who was responsible for any branch of our instruction.

It should not be forgotten that where a building must be looked after, as in my own case, with its apparatus, supplies and materials for class-work, constant supervision is necessary, whether all such are in daily use or not.

In this laboratory we have a small museum or teaching collection, containing about ten thousand entries, and no year passes when additions to it are not made. The work of labeling, renewal and redistillation of alcohol, fumigation of every case of prepared mammals, birds and invertebrates which should be done each year, requires no incon-

siderable amount of time, and in a larger institution would fall to a special assistant or préparateur. Hundreds of hours have been spent during the past few years, by instructors and students especially employed for the purpose, in preparing a series of skeletons for the illustration of vertebrate anatomy. The work of laboratory supervision requires one or more hours daily on the part of the person in charge. Our laboratory courses which are catalogued as consisting of three periods weekly, occupy from five to seven hours, and it would seem that two laboratory courses of ten to fourteen hours each week were sufficient to expect from an instructor who has the necessary work of supervision of a laboratory. I have sometimes had four laboratory courses, and always two or more on the average for each term of the year. At present I have three laboratory classes, one in two large divisions, a reading class, meeting weekly, and a graduate student, and spend six to seven hours daily in the laboratory every working day of the year. I have always felt that every effort spent, whether in the equipment of the instructor himself, or in the improvement of the tools with which he and his students work, is a distinct gain to the institution as a whole and is directly related to its primary work of teaching.

An instructor in the department of German writes:

In the past two semesters I have done in the College for Women and Adelbert twelve hours per week of elementary work and three hours graduate work. The preparation for each hour of elementary work, including the correction of written exercises and of the monthly tests, has required on an average one and one-half hours, making a total average of eighteen hours per week outside of class, plus twelve hours in the lecture room—a total of thirty hours devoted to elementary work. In the graduate school I have been giving a course of lectures for the first time, and have therefore had to devote considerable time to preparation. Under

normal circumstances, six hours per week spent in preparation for this course would be sufficient, making a grand total of about thirty-nine hours per week or six and one-half hours per day devoted to the daily work of the college. Next year I could with the added experience give the same courses by working six hours per day. I could doubtless give eighteen hours per week elementary work with no more expenditure of time or energy. It has been nothing of a strain to do this, either mentally or physically. Although the time left for independent research work has been short, nevertheless I have managed to accomplish some. That I have not done more has been due in part to the time required for getting acquainted with libraries, college surroundings, etc. Naturally, I have had no committee work, and no records to keep save those of my own classes.

The elementary work furnishes the best basis for calculation, as the tests and written recitations are constant factors. From my observation I should reckon the time required for giving higher electives in comparison with elementary work as two to one. I have not found one elective and twelve hours elementary work too much; two electives and eight hours elementary, or nine hours solid higher elective work would be all I could do justice to. No matter how often the elective higher courses are given they must be worked over afresh in view of the newer literature, and the instructor's own development. My own working capacity is about nine hours per day. If I attempt more I find I cannot work intensively nor to advantage.

One of the oldest professors of the University writes as follows:

In reply to your letter, I would say that I have nothing to suggest in regard to the hours of teachers who have laboratory work. In regard to other College teachers, some of the "principles that should rule in determining the number of hours of class-room work" are, it seems to me, these:

- 1. A College teacher must not depend on repeating his instructions year after year. He may repeat his courses, but unless he makes important additions by fresh work, he is a dead, not a live, teacher.
- 2. A College teacher's work of preparation is not simply among books. He must spend time in independent thinking, even if his thinking is inferior to that recorded in books.
- 3. The nervous strain of class-work, upon a live teacher with fresh material, makes a second hour of continuous instruction inferior to the first, and a third hour—day after day—hardly worth having.
- 4. The fundamental difference between College instruction and secondary school instruction is this: The College teacher must make himself an authority. He must stand before his class very nearly on a level with their most authoritative books.

These principles are obvious enough, but how to apply them—"there's the rub."

I suppose that twelve hours a week are the utmost that can be filled by anybody with class-room work well done. Six hours would be better, but I know of no College that can yet afford it.

From these replies, taken upon general grounds, I wish to make three inferences. First, the members of the teaching staff should be worthy of being the recipient of the trust of the Board respecting the amount and kind of work they shall perform. If a member of the teaching staff is not worthy of such trust, he is not worthy to be a member of this staff. The question is not, of course, whether he shall work or shall not work; but the question is what is the kind of work he shall do? The amount he should be worthy of determining himself. Second, it is to be recognized that the interests of the teacher and of the University are identical. His faithfulness increases the worth of his own service, and

his faithfulness increases the worth of the University. His scholarship adds to his own fame, and also adds to the reputation of the University which he serves. In a large understanding of the question the interest of the teacher and of the University is one. Third, when the faithful teacher has done twelve, or at the outside, fifteen hours of class room work a week each, every additional hour of instruction represents a sacrifice of the quality of the instruction to its amount. Such a sacrifice many Colleges are obliged to make. In not a few instances poverty necessitates this result. Such a sacrifice this University should not now make. Among the most valuable assets of a University is its reputation for high scholarship and noble teaching. This asset is not to be suffered to be jeopardized.

In the current years the Faculties of Adelbert College and the Law School have voted that a Senior in Adelbert College may elect nine hours of the fifteen of every week in the studies of the Law School. This arrangement is similar to the arrangement which has for several years obtained between the undergraduate College and the School of Medi-This change is significant. It has arisen from several conditions. One of these conditions is the lengthening of the period of preparation for College in the academy of high school from three years to four, and also a lengthening of the professional course from two years to three. peril has been, and still obtains, that between the lengthening of the pre-collegiate and the post-collegiate period of education, that the collegiate period itself would be passed Not a few American families whose sons desire to become lawyers or doctors are not able to give themselves the advantage of four years in the fitting school, four years in the College, and three or four years in the professional school. The degree to which the shortening of the College course in some form has become common in the American

Colleges is somewhat significant. A senior in Columbia College may elect all his studies in the Law School, and receive both the first and the professional degree in six years. A senior in the academic department of Cornell University may so elect in the College of Law as to receive both degrees in six years. A student in Harvard University can take both the Bachelor's degree and the law degree in six years. No student is admitted to the law school who is at the same time doing any work in the College. He cannot work at the same time toward both degrees, but he is able to compress his undergraduate course into three years, and about onefifth of the graduates at every commencement have spent only three years in College. In the University of the States of Indiana, Iowa, Kansas, Michigan, Minnesota both degrees can be received in six years. In Yale it is possible for a student to receive both degrees in six years, although seven years is the more normal period.

It is therefore evident that in the case of the great maiority of Universities which include both an undergraduate College and a School of Law it is common for students to receive both the bachelor's degree and the law degree in six years. It is not for a moment to be questioned that it would be well for American life if students were all willing to devote a longer period in preparation for the serious duties of a professional career. But students are unwilling and the unwillingness lies in part, at least, in the fact of the advanced age at which men begin their College course. The fault of this advanced age lies not in the academy or the fitting school, but it lies primarily in the primary or grammar school. A year for most and two years for many students could be saved through a better adjustment of the studies of the primary and grammar school. A better adjustment will be made, but changes in the educational process are slowly made. Until a better adjustment can be had it is apparent that many students will appreciate the duty of entering into their professional career as early as possible. In case they are able to make certain combinations of studies between the undergraduate college and the law school they are willing to take a College course. In case they are unable to make certain combinations they are inclined to pass at once from the high school to the profession.

Under this condition, therefore, the faculties of both the Law School and the undergraduate College of Western Reserve University have with comparative unanimity entered into a co-operative union. The success of a similar arrangement made between the Medical School and the undergraduate college gives good ground for the assurance that satisfactory results will follow this present arrange-One especial advantage for securing a successful result lies in the fact that the studies of the Law School are fitted to perfect the training of the power of discrimination and reflection. The training of the power to think represents the most comprehensive and most valuable result of a College course. To one who is acquainted with the present methods of teaching the science of law it cannot for an instant seem doubtful that these methods do discipline the power to think quite as thoroughly as the studies in the College of liberal learning.

I have recently addressed a note to every member of the teaching staff of the University asking them to indicate to me what aid the Board of Trust could give in order to make his work more valuable. The replies which I have received, and the fact also that not a few indicate that no special needs exist in their department, allow one to reach the conclusion that the members of the teaching staff are on the whole content with the conditions in their departments. It is, however, not unfitting for me to quote from some of these replies to indicate certain specific needs which the Board may most fittingly consider.

The replies which I have received indicate that in the opinions of our associates of the teaching staff the chief needs are as follows: First and foremost a permanent library fund. The Chairman of the Library Committee suggests \$200,000. A teacher of English in the University speaking of the need of books, says:

It is difficult to answer your letter of recent date, owing to the many things that suggest themselves from one standpoint, and the few that it is at all reasonable to ask. Two things may be emphasized especially. Notwithstanding the excellent gift to the library in '99, we much need a sum each year which can be counted upon for keeping up in our subject, and occasionally adding valuable books out of print and only to be obtained through the second-hand catalogues. The library is the laboratory of all the humanities, and the best work is absolutely dependent on completeness of this great storehouse of the world's past.

A second need of the department, when it can be reached, is an instructor in elocution and public speaking. We are now doing as well or better than before, but there is still need of strengthening this work for the best interests of the College.

Another teacher in the department of history says:

Responding to your question of the 19th inst., as to how the Board of Trust could best aid in my work as a member of the teaching staff, my reply may be compressed into the single word—Books. A College library represents in large measure the interests of those teachers who have been formerly connected with the institution. Now, it happens, that those who have taught History here have not been especially interested in the Middle Ages—the period in which I am giving instruction. The result is that, in comparison with other divisions of the field of History, the Mediaeval is not nearly so well represented on the shelves of our library. Let me state an illustration, which might be

indefinitely multiplied. No one can understand the Middle Ages without a thorough knowledge of the Church, which played such an important rôle at that epoch. None will controvert this statement. There is, however, not a single book on the important subject of Canon Law in either Hatch Library, the Public or Case Libraries.

To ask the historian to teach without books is like requesting the surgeon to operate without instruments. Books are the life blood of a College. Carlyle said: "A great University is a great collection of books." The library of a College is the last place where retrenchment should be practiced. To do this is to commit the folly of the stomach, which tried to do without food in order to purchase a pair of gloves for the hands; soon the entire body felt the disastrous effects of this false economy.

That the members of the various faculties of Western Reserve University have taken the rank which they hold in the world of scholarship is largely due to the broad policy of the Trustees in building up the library of the institution.

Another need, which, however, those of the teaching staff do not usually, although occasionally, refer to, is the need of a larger endowment for the payment of adequate salaries. The need of a salary for the clinical professors of the Medical School should presently be considered by the Board.

A further need is indicated in the desire for more room and for more rooms. After building a dozen buildings in the last years, the undergraduate colleges and the professional schools are, with a few exceptions, well equipped for the next decade. The enlargement of the Law School building is urgent. The enlargement of the gymnasium for students in Adelbert College is urgent, but possibly yet more necessary is an absolutely new gymnasium for the students of the College for Women. The conditions of exercise for these students are thoroughly inadequate. Several professors

also indicate a desire for recitation or lecture rooms devoted to a single department. In such a room books can be gathered and helps used. Maps, photographs, and other materials illustrative of the subject taught in the rooms can be easily placed.

Several of our professors, not only in the undergraduate colleges, but also in the professional schools, indicate a desire for what may be called tools. Stereopticon slides, laboratory equipment, and apparatus of various sorts for teaching and for investigation are needed. It is also evident that funds for research could be used advantageously by several of our associates. The H. Melville Hanna Research Fund for the Medical School represents a type which is exceedingly useful, not only for the work of the University, but also for extending the borders of human knowledge.

In view of these urgent needs, thus presented, and of other needs equally urgent, I beg to recommend that measures be at once taken to raise not less than EIGHT HUNDRED THOUSAND DOLLARS for the enlargement of the endowment of the University. The sum is not large in relation to the needs or in relation to the property already possessed or in relation to the power of our immediate constituency. United enthusiasm cannot fail to secure this result.

The first decade of the life of the Graduate School, of the Law School, and of the Dental School are now finished. Regarding certain conditions of each of these departments I beg leave to refer to the statement made by the officers of these departments.

The work of the three departments which have been established in the last decade proves the wisdom of their establishment. The needs also arising from the nature of their work proves that these departments must receive the immediate attention and the large help of the Board. The statements made by the Dean of the Law School and the Dean of the Graduate School are exceedingly impressive

It is now ten years since the first buildings of the College for Women were occupied. There is, therefore, special fitness in reference to the growth of the College in this period and in the period of fourteen years which have elapsed since instruction was first given.

The whole number of students in each year has been as follows:

1888-1889	14	1895-1896	128
1889-1890	38	1896-1897	128
1890-1891	45	1897-1898	146
1891-1892	85	1898-1899	183
1892-1893	85	1899-1900	171
1893-1894	101	1900-1901	210
1894-1895	108	1901-1902	222

The first class graduated in 1891 and consisted of one member. The total number of graduates is one hundred and ninety-six, an average of seventeen for each of the eleven commencements since 1891. But the average number going out each year since the first class graduated that entered the new buildings is twenty-nine. Of these one hundred and ninety-six graduates, one hundred and thirty-one at the time of their graduation were residents of Cleveland and sixty-five were elsewhere living. These sixty-five persons had their residence in eleven states.

These graduates are now engaged in the following callings:

In teaching	134
In library work	
Married	38
In business	5
Graduate studies	6
At home	6

The amount of money that has been given for the erection of the buildings and the purchase of land, including the Hatch Library building, is \$379,000. This amount, added to the interest bearing funds, makes an aggregate of \$658,000. This sum has been given in the following proportions:

•	
One person has given	.\$150,000
Three persons have given, each	
Two persons have given, each	
One person has given	. 30,000
One person has given	
One person has given	
Two persons have given, each	. 5,000
Six persons have given, each	. 1,000
Ten persons have given, each	

About a hundred and sixty persons, of whom eightysix are graduates, have given also for the annual current expenses, in sums running from \$1.00 upwards.

Summary to indicate the total principal of the	iese func	ls:
General Endowment\$	164,490	12
Julia Gleason Fund	10,150	00
Mary Chisholm Painter Fund	5,000	00
Lucy A. Leffingwell Fund	30,575	07
Florence Harkness Biblical Fund	50,650	00
Dr. H. Kirke Cushing Fund	10,512	00
Mrs. Eliza Ainsworth Scholarship	4,700	00
C. W. Merrill Scholarship Fund	1,000	00
Francis G. Butler Publication Fund	1,000	00
Carrie F. B. Thwing Library Fund	2,000	00

\$280,077 19

In the Medical School this year marks the beginning of a change for several years contemplated,—requiring at least three years in an undergraduate college for admission

to the school. The reasons which led the Faculty and the Board of Trust to this advanced step in Medical Education are significant. This change represents the assurance that the man who is daily with humanity as a physician should not only possess a technical training, but also have a liberal education. The decision is that one who comes to the Medical School as a student should be able to interpret, to analvze, to synthesize phenomena, to reason logically, to feel rightfully, to choose wisely. He should be able to understand the principles of life, and also possess the power of applying these principles to all human phenomena. The decision is clear that students should not be content with facts or a series of facts, but should be able to indicate the significance of each fact, and the relation the members of a series possess to each other. Such an understanding of facts results in the formation of faculty, and faculty is always more significant than facts. Education stands for the power to value truth, to judge, and to assess each truth at its proper worth. Education may in the first place be understood to be an intellectual function; but it cannot worthily be intellectual without belonging to the other parts of our nature; and if it educates the head and the heart, the will and the conscience, it must be concerned with the intellect itself, for man is one. The conception of right easily becomes the love of righteousness, and the love of right leads to the choice of right itself. Education is a training in the sense of relations. The greater the number of relations into which the individual thus enters, and the more intimately he is concerned with these relations, the richer and more adequate is his education. Education is self-development, self-enlargement, self-enrichment, and selfknowledge. Its purpose is to prepare one to do whatever he is called upon to do under the most fitting conditions and the widest methods through the most efficient power unto the largest results. It is designed to make one an effi-

cient member of human society. Discrimination, comparison, appreciation are its rallying cries. It is therefore a judicial possession in which weighing evidence is significant. It is also a training of the power to think. To judge, to reason, to observe, to collate and infer,—these are its properties. In a large way, and yet a most vital way, it is designed to fit one for civic and for social usefulness and happiness. If it is designed to make the scholar it fails to do its whole duty if it fails to make the gentleman. If efficiency is its more important function, graciousness is one of the symbols of its presence and force. It humanizes the animal in man and dethrones the brute, and crowns man himself with the crown of knowledge and of thought. adjust one to his highest environment, and in such an adjustment it heightens man himself. It seeks to realize the highest possibilities of every individual, and through the seeking of the largest worth of the individual, it also seeks to increase the worth of humanity itself. Magnanimity is one of its great words both in reference to the individual and to the race itself. Such general considerations touching the effect of education upon the mind and character of the individual seem to me to have special value in respect to one who proposes to become a physician; for the physician is called upon to analyze and synthesize phenomena, to relate fact to fact and truth to truth, to assess every fact or truth at its proper value, to determine the significance of the symbol, to reason logically, to relate principle to rule and rule to principle, to trace effect to cause, the essential to the accidental, and to hold the necessary and essential under a large variety of conditions and circumstances. He is to possess knowledge himself in order that he may gain further knowledge. He is to be rich in brain himself in order to add to the treasure of other lives. He is to be a large man himself, in order that he may create a larger manhood in those to whom he ministers. His development is to be complete in order that the development in others may be suppreme. In him and in his service relations, physical, physiological and psychical meet. He is to understand the outer world, for the patient to whom he ministers is a citizen of this world. He is to understand the soul, as well as the body, of his patient, for the relations of what we denominate body and soul are so intimate that to separate them is beyond human power. The physician learns that man is one, but that this one being has numerous functions, and that he is acted upon differently at different times by the same condition, is acted upon with identical results by different conditions at different times, and that he embodies and represents what is called the uncertainty of medicine.

Therefore be it said that no analysis is too accurate, no synthesis too comprehensive, no discrimination too exact, no examination too thorough, no logic too rigid, no reasoning process too fine for the physician's equipment in his daily service.

Such reasons and such reasoning have led the Faculty and the Trustees of this College to take the step in medical education which this year marks.

The responsibility is great and the cost in income is not small. The responsibility of failing to offer to the community the best trained physicians and gentlemen of the finest type would be great. The peril of asking the community to accept untrained and ill-trained practitioners in an art and a science which is above all other arts and sciences is at once a sin against God and a crime against man.

The year has been marked by great material changes. The Florence Harkness Memorial has been dedicated and has already begun to serve with great worthiness the members of the College for Women. The building is perpendicular Gothic of the middle period in design. The plan consists of the Nave, forty-five feet by eighty-four feet, di-

vided into seven bays, with six heavy open timber trusses of oak, ceiled between with diagonal boardings of Southern pine. The Tower is sixteen feet six inches by sixteen feet six inches, forming the entrance to the Nave and to "the Hall, or students' study," fourteen feet by thirty-one feet, and thence to the "Bible Class-Room" and "the Study" for the professor of Biblical History, is placed at the west side and forms the "attachment" of these several work rooms with the Nave. The Professor's Study is twelve feet six inches by twenty-one feet six inches, Bible Class-Room twenty-five feet by thirty feet, and opening from class-room through a broad arch is the Library, fourteen feet by twenty-five feet, fitted with book shelves, and space for reading tables and chairs.

The Chapel contains an organ chamber, twelve feet by twenty feet, with organ, a choir, ten feet by forty-five feet, raised five steps, and the platform, six feet by thirtyfive feet, raised three steps from Nave floor. The Nave will seat comfortably five hundred and twenty-four persons. additional to choir and platform. There is a northeast and southeast entrance, besides the Tower entrance. The eaves are twenty-eight feet, and the apex of gable fifty-four feet from grade. The Nave is lighted, naturally, with a large window in the north gable and a series of seven windows in each side wall, and artificially with twelve electric octagon pendants, of bronze and opalescent glass, each being suspended from the hammer beams of trusses and four foliated brackets, two on each end wall. The windows have wide splayed cut stone jambs and are filled with cut stone tracery divided with mullions and foliated transoms and are filled with opalescent glass in leaded outlines. The walls are paneled with moulded wainscot six feet high, plastered above same to the crenelated cornice, the interior woodwork being oak. The Tower is forty-five feet high and forms the main entrance through a heavily moulded arch-

way with a memorial panel and carving over the same. The floor is encaustic tile mosaic in patterns, the walls vitrified brick with cut stone trimmings around openings. The paneled ceiling is thirty-three feet above the floor, and from this is suspended an octagon lantern of bronze and opalescent glass. Through this tower is the entrance to the Nave and the working rooms. "The Hall" is provided with tables, chairs, large divans, a stone mantel and opposite this mantel a bay, nine feet six inches by twelve feet, with a semicircular seat; over entrance to the Nave is a cluster of carved stone foliage encircling "I. H. S.," and over door to the hall is a similar carved cluster holding "The Open Book." In the Bible study class-room are two emblematical windows in opalescent glass in leaded outlines, enclosing "The Lamp of Life" and "The Open Door." The basement is devoted to heating and ventilating purposes and contains the motor and fan for operating the organ. The material for exterior is Ohio sandstone, rock face. The Tower being the entrance is all cut stone, with perpendicular panelings, accentuating the tracery of the openings. The roofs are copper and black slate. The Nave has a center aisle and two wall aisles, and the seating is with double pews, each with a perpendicular paneled end, curved backs and dished seats. The "perpendicular" design is carried out faithfully. in stone work, wood work, lighting fixtures, hardware, glass and seating.

The west gable has a large perpendicular window divided into five panels in widths with moulded stone mullions and three panels with arched and foliated and cusped transoms.

Haydn Hall, the corner-stone of which was laid at the last commencement, will be ready for occupancy at the opening of the next college year. It is collegiate Gothic in design, and is constructed in red-brown bricks and buff sandstone. This building is forty-five feet wide and one hun-

dred and nine feet long, of three stories and a basement, with the main entrance facing the "Quadrangle." A terrace, twelve feet by forty-five feet, is on the north end facing Clark Hall. The main entrance hall is fifteen feet wide and forty-two feet long, in which are the main stairs from basement extending to the third story. On the left is the study, forty-two feet by forty-four feet, in which are two hundred work tables and two hundred manuscript drawers. The tables are arranged in pairs and so designed as to form a separate alcove for each student. On the right is the dining hall, forty-two feet by forty-four feet, with a corner cabinet arranged with lift to the kitchen below. On the second floor in the center over the entrance is arranged a suite for the matron, being a library or living room, twelve feet by fifteen feet, with communicating bed-room, twelve feet by thirteen feet six inches, with bath and large clothes closets. Over the dining room are two class-rooms, fifteen feet by eighteen feet each, and two class-rooms, fifteen feet by twenty-five feet each. Over the study are three bedrooms, nine feet six inches by twelve feet each, and two bedrooms, twelve feet by thirteen feet six inches each, and a bath-room, ten feet by fourteen feet, and a linen-room, six feet by nine feet. On the third floor are thirteen bed-rooms (eight nine feet six inches by twelve feet each, four twelve feet by thirteen feet six inches, two eleven feet by twelve feet each, and one twelve feet by fifteen feet), each room having large clothes closets. On this floor also are two bathrooms, each ten feet by fourteen feet.

The second and third floors are each divided by corridor, nine feet wide, well lighted, and at each end is arranged an alcove with large seats each side.

In the basement is located the general toilet-room, kitchen, store-room, pantries, locker and bicycle rooms, a laundry, a boiler-room, coal and ash-rooms. All the rooms have separate vent flues and registers opening into four vent stacks, each stack being fitted with draft regulators and outtake coils. The finish in main stair hall is old oak, throughout the other rooms, chestnut. All floors are Georgia pine. The halls, dining-room and study have wainscot five feet six inches high. The building is heated with steam, direct and indirect, and lighted with electricity.

A thorough reconstruction of the main building of Adelbert College has been in progress throughout the year. The main entrance has been remodeled, including new entrance doors, with marble floors and marble stairs from vestibule to the main floor and to the basement floor, including new vestibule doors and side lights. The woodwork is old oak and the marble Italian white with Belgian black, and the treads to the marble stairs are covered with corrugated brass safety plates.

In the basement lobby at the left is the new lavatory and at the right the new locker and bicycle room. The basement lobby and the lavatory have marble floors and wainscot, and the lavatory is fitted with the latest sanitary fixtures and ventilating system. The locker-room has cement floors, walls and ceilings, and the lockers, two hundred and fifty in number, are of perforated japanned steel, being of the most improved self-ventilating model.

Entering through the vestibule doors at the right is the President's room, and at the left is the Treasurer's room. Each of these rooms have marble mosaic floors with paneled oak wainscot, six feet high, with book cases fitted in same, new mantels, and the walls are covered with sage green burlap. The Treasurer's room has also two burglar and fire-proof vaults. The main stair hall, first floor, has marble mosaic floors, marble wainscot, six feet high, and a new oak stairs and paneled oak wainscot to the third story. This stair has mahogany posts and hand rails. The walls are covered with old gold burlap; the ceilings are tinted light yellow. The Trustees' and Faculty room, being the northwest corner room, is refinished with paneled and beamed

oak ceiling, a paneled oak wainscot, nine feet high, with a new mantel working in with the wainscot. This mantel is formed with a carved entablature and frieze, supported with Ionic columns and pilasters enclosing a carved frame panel.

This Trustees' room is furnished with a rug, twentyfour feet by thirty feet, a large oval mahogany centre table. seven feet by fourteen feet, and twenty-four "Ben Franklin" chairs, and is lighted artificially with a two-tier electric chandelier and a large bronze electric lamp on the table. The President's and Treasurer's rooms each have large rugs, cherry desks and chairs, and are lighted with bronze electric chandeliers and drop lights. The main stair hall is lighted artificially with a three-tier electric well-hole chandelier. The Classical room, being the northeast corner room, is fitted with new bookcases from floor to ceiling, including manuscript drawers and photograph cabinets. The class-rooms, this story, all have new oak floors and the walls colored a flat olive and ceilings a rich cream. The study, or examination hall, has a new oak floor and wainscot, and the walls are colored same as class-rooms, this story. The second story class-rooms are all newly furnished with oak floors and newly decorated walls and ceilings. The chapel on this floor has new oak floors and the walls covered with old gold burlap. The organ is remodeled, and fitted with the latest approved electrical appliances, the motor, bellows and fan being placed in the attic.

The large room on third floor formerly used as a museum has been divided into two large class-rooms, and the walls and ceilings correspond with the class-rooms below.

Two new class-rooms have been added on the second floor, one at each end of the stair hall, making in all an addition of four well appointed class-rooms.

Each class-room has been supplied with the necessary book and pamphlet cases, drawers and blackboards. The blackboards are of black slate, four feet high, in long slabs, one-half inch thick, and extending all around three sides of

the rooms. The principal rooms of first floor and the stair halls, each floor, are supplied with new electric lighting fixtures. In the north end of main hall, first story, is to be placed a carved marble mantel, "In Memoriam" to the refounder of the College and the donor of the building, "Adelbert College." The marble is richly carved with a draped festoon, of conventional forms, above the shelf, supporting a bronze tablet with a proper inscription.

Below the shelf is a double festoon supported each side with laurel wreaths, and below on each side are carved allegorical standards bearing the fruits of life. This work being in selected Carrara marble—is enclosed in an oak border—with Ionic pilasters supporting a classical entablature.

Plans have been drawn for a laboratory of chemistry and geology and between \$40,000 and \$50,000 has been pledged for its erection. But the plans drawn call for a building to cost somewhat over \$00,000, and the plans are of such a character that it seems impossible to change the process of construction. The Trustees have also voted before beginning the erection of the building to secure a fund, of which the interest should be sufficient to support the building. In this condition it seems the part of wisdom to receive the funds already subscribed and to wait for a falling of the present high prices of materials and labor, unless some one shall find pleasure in making a contribution ample to secure the immediate erection. The desire for an immediate erection is emphasized by the fact that the head of the department of chemistry will, with the present academic year, have completed a service covering a third of a century in this undergraduate college.

It is significant that athletic sports increase in our College from year to year. The value of such sports depends primarily upon their effect on the students. This effect is to be judged not alone by the value to those who pursue them who are now in college, but also upon their permanent worth. I have, therefore, asked several men who played football while they were in college to state the value of that game and other sports for them as an element in their permanent character and work. I beg to submit extracts made from the replies of certain of our graduates or present students. The first extract submitted is taken from a letter written by a student who is now Assistant Principal of Western Reserve Academy at Hudson.

In answer to your favor of recent date, I have this to say. I believe in football and the good it can do for body, mind and soul.

In my own experience, I have been helped largely by the game in three ways: (1) The game has strengthened my muscles, has given me better control of them, has enabled me to use them more readily and skillfully. (2) The game has given me whatever energy and vigor I may have. It has "waked me up." The game is one which calls for vigorous action, and this habit once formed is likely to be felt throughout life. (3) I have caught something of the football spirit "to do or die," "to fight till the goal is reached." I feel that the game has helped me more in this way, perhaps, than in any other. When I entered college I had little confidence in myself, became easily discouraged, gave up too soon. The game has been very helpful to me in overcoming this weakness.

The game, too, teaches the player the supreme lesson of discipline. It cultivates obedience to law and order, the player being obliged to submit to the severe discipline of coach and captain without a murmur. This discipline also impresses the player with the value of regular habits, good food, avoidance of all excesses. He develops self-control, coolness, readiness in an emergency, quickness of thought and action. I believe that the game tends to do away with

that surplus of physical energy which frequently shows itself in forms of hazing, dissipation, etc.

There are certain disadvantages. Those I mention are not necessarily inherent in the game. (1) Scholarship. The game takes too much attention from certain students to the detriment of their class-room work. I believe that the only way to meet this evil is to insist that every player maintain a certain standard of scholarship. (2) Health. Some engage in football who ought not to do so. Examination by school or college physician ought to determine who should play. It should be understood that the man who does not train faithfully or who is not in good condition may not play. Irregular training is responsible for many ill-effects. The management should see to it that the men are properly dressed and equipped for the games. This has special force as applied to football, where a poor shoe may permit a severe ankle sprain, or lack of padding in pants or jersey may lead to a severe bruise or fracture. (3) Rowdvism in players or coaches should not be tol-Morals. "Play hard but be gentlemen," should be the erated. Profanity, vulgarity, unfair tactics, etc., are not a motto. necessary or a wholesome accompaniment of the game. Plavers should be impressed with the fact that it is better to lose than to win by unfair tactics. Coaching of unfair tactics should not be tolerated. The game may be made valuable in teaching the players how to take defeat and victory. The game can be made to impress upon the players the idea of human brotherhood. The game is a social leveler. Factional interests should be buried.

The second letter is written by one who now occupies a position in the city government of Cleveland.

I have already said so much about football that my friends think football must have been my principal study. I am a firm believer in athletics, and I regret that I could not spend the time while in college to develop in other sports

than football; but, as you know, most of my spare time was spent in earning money, while my early life on the farm well fitted me for the football line.

I believe the training one gets in athletics is in a way one of the best things a man can get out of his college course, especially is this so, if he intends to go into business; football makes a man think and act quickly; it also brings out a certain degree of shrewdness necessary to a successful business man; it teaches a man to do the right thing at the right moment, for opportunities last only a moment in business as well as in football.

Of course I am only speaking from my knowledge of football (to me the greatest American sport), but I believe all athletics to be most beneficial. I heartily recommend football to any student who has the physique to stand the strain; if not strong the track and gymnasium should be a part of his work. I believe football has done as much for W. R. U. boys as any part of their college work.

I am aware that there are dangers in football, but I never felt them and I played the game when it was much rougher than it is to-day. I attribute my lack of injury to my course of living. I was compelled to live on plain but wholesome food; I never drank a drop of intoxicating liquor and never smoked, and so did not have the weak spots that many boys find in their make-up.

The following letter is written by one who is taking his doctor's degree at Harvard University the current year:

The advantages of the game, in my opinion, far outweigh its disadvantages. In the first place, it is a game which demands all round development, and if a man is a normal, healthy man it will give him such development. It develops not only the muscles but the head, for a man with mere muscular strength and nothing else is worse than useless. Again it teaches a man how to handle himself. I have seen most awkward fellows who have received great help in that respect. Again it demands regularity of life in all things and hence makes a man better able to study. I know that football was an aid, rather than a drawback, to my study.

The only disdvantages in the game are the tendency among some to devote their entire time to the game, and hence they seek the college for the game merely; and secondly, the danger to men of insufficient development. The first is easily enough overcome by demanding that a man shall hold a certain scholastic standing or else cease to play. The second can be overcome by insisting that every man who plays shall take a strength test, which will show whether he is physically fit.

The same general principles applies to all other forms of college athletics, I believe.

Another graduate who is at present a law student at Harvard writes:

When I came into Harvard Law School I soon found that under ordinary circumstances my acquaintances would be limited to men who were assigned seats near me in the various lectures, and men, members of my own law club. But through the good report of others I was soon recognized as one of some athletic experience and invited to join a law school football team, formed for the purpose of competing for cups given by a friend of the University. Here I met trained athletes from all over the country, men who stood well up in the class-room and walked like men of men. Here a man, leader in the law men from California, another the best man in his class as a student and captain of the team, and third, one of whom it has been said Harvard owes much to. This to me was a positive advantage, an opportunity to meet good substantial fellows.

Here at Harvard, with its countless customs, manners, traits, the athlete is generally one of moderate means who enjoys the membership of clubs where the most popular men

are desired, who finds an entrance into the wealthier grades of society by means of his prowess and who stands above the collegiate ordinary as a recognized force whose wants must be respected by his fellows.

When one enters a football game or a baseball game the lesson is soon thrust upon one that the cause is best furthered by a sacrifice that as a general rule the individualism that makes one a star and is applauded by the crowd is not of the sort that makes the team a star, and a good captain is never the most brilliant. Then the athlete learns what being "sunned on" means. The crowd with you; all glory is yours; you in disgrace; your friends are few. A political world in one sense, where the candidate for honors soon learns when he is out of the race. Then the temptations that "honor" brings are your taskmasters. In short, the athlete, when he finishes, is not the "plan on paper" who believes that there is not such as a single cause, but who has had some rough lessons in human nature and struggled against conditions.

Lastly, the athlete learns that to win is to sacrifice. The record is broken after the pipe is thrown aside and the good fellow dispensed with for the time being. A steady grind is the part of a steady success, and unfortunate is the man who has the other easier course, for he is not benefited by athletics.

As a postscript I may add that the good athlete, to carry the respect of the best of his fellows, learns before his four years are up that his athletics are one of his many sides, and a too ardent devotion means an ultimate companionship with inferiors.

The next three letters are from lawyers of the city of Cleveland:

In reply to your favor of the 21st, I am pleased to say that I am an enthusiastic advocate of football for college men.

In favor of football, I will enumerate the character of

the sport, being one that calls into play all the muscles of the body; also, it tends to increase the lung capacity and hence improve all of the organic actions of the body; also, the fact that the game is played by signals causes a mental alertness in offensive playing that keeps each player up to the highest point of mental and physical activity. This fact likewise causes the defensive player to be equally alert in trying to foresee and thwart the offensive play.

Great improvement has been made in the diet of athletes, so that there results a much better equipment, both physically and mentally, for the winter's mental work.

The physical and mental strain that each player is under and the devotion he feels to his Alma Mater, prompt him to maintain himself in absolute self-control, resulting thereby a better poise under the most aggravating circumstances and coolness of judgment in matters that must be decided upon in a second and a spirit of unanimity, all of which tends to make him successful in the afterwalk of life.

It is possible in some sports to be a star player, but in football every man has his particular place to fill and is indispensible to every other player.

The Duke of Wellington told his men that "England expects every man to do his duty," so the football captain inspires in every player the desire to acquit himself creditably to his team and to his Alma Mater. I know of no game where the expression, "Johnny on the spot," is truer than in the game of football. I know of no sport that will teach a man to divide his time to better advantage between the vocation and the avocation of life. To every one who has the proper conception of athletic sport, there is no danger that his mental studies will be neglected.

I have enumerated above some of the advantages that have appealed to me in regard to football. I never took any active interest in baseball or other college athletics, so I am unable to compare football with them.

As to the disadvantages in playing football, I cannot conceive them to be any greater than exist in social, fraternity or literary work in college. Every good thing is liable to be abused, and I do not think that football has any more chances of being abused than other features of college life.

I will say, first in regard to advantages derived from such sports, especially from football, that aside from the physical advantages, of which there is no doubt, there are derived quickness and accuracy of perception, promptness of decision, self-possession amid exciting surroundings, self-government of temper, ability to discern wherein one has erred in judgment, thereby training the power of judgment, and the broadening of character which must result from frequently utilizing the combined mental and physical forces. These are some of the advantages that I believe result from proper indulgence in football, from my observation of men who have been identified with this sport.

As to the disadvantages, I believe them to exist only in the abuse of the sport. In my opinion football is pre-eminently the primary sport wherein are developed both mental and physical powers.

Football was the means of giving me a large acquaintance in this city, some of whom have become good friends. Having had a traveling position after leaving school, I found that many men knew me merely because of football. It is my opinion that my weight, size and strength were increased by playing the game, although I believe I can trace a "stiffness" in my left shoulder to tackling. It is also a cure for "hot-headedness."

Playing football may have had a bad effect on my grades in college, although not on my training. However, I don't consider grades, as it never worried me whether they were high or low, as I knew what I was accomplishing.

The next is written by a graduate who is engaged in business:

From my present standpoint I can speak on this topic with less prejudice than it would have been possible for me to do eight or ten years ago. And in the midst of this present apathy, after a full hour's meditation, I must say on recalling my past experience that I am still heartily in favor of the continuation of athletics as they existed while I was in college.

However, there are also disadvantages, and I shall endeavor to lay both sides before you as they come to my mind.

One disadvantage is the loss of time among the students before and after the successive games, arising from the extreme interest in the games, whether the time be wasted in suspense as to the outcome of the impending contest or in joyfully or sorrowfully reviewing the battle continually for several days after it is fought.

"Playing the game over again," as we used to express it.

The greatest disadvantage, however, that comes to my mind is the bad physical effect upon the athlete after he leaves college. While training for and participating in the games, especially in the exciting game of football, the athlete's muscles and nerves become pitched to a height which it is impossible for the average man to maintain in his future occupation. Unless he zealously keeps up systematic exercise after leaving college or lets down very gradually he will suffer serious injury, which might even result in physical collapse.

The only other disadvantage that comes to my mind is the danger of injury to players. This is what an outsider would probably class as the worst feature, but after four years of actual experience where I could both participate and observe, it seems clear to me that the adverse physical effects, broken legs, twisted muscles and all included, are very small as compared with the total physical benefits. I experienced in college three broken fingers, had muscles torn on knee and shoulder, had both insteps caved in at one time, had ribs loosened from the cartilage, was knocked insensible twice within three days, received innumerable scratches and bruises and was as accustomed to sprained ankles as the average sophomore is to flunks in analytics, but in every instance, with assistance of no other remedy than Doctor Herrick's panacea of hot water balm, I was restored to even greater strength by the same sports that caused the injury. And in seven years that I am out of college I never once experienced any pain or any impediment from those once injured members, and I am sure that the general physical, mental and even moral development I received compensate a thousand times for the pain I suffered at the time of the respective accidents.

This now brings us to the advantages.

Besides the necessary wholesome recreation and the promotion of enthusiasm for the student body, athletics afford most wholesome exercise for the players, mental and moral exercise as well as physical.

The necessity for co-operation so prominent in base-ball, where it often requires two or three to complete a play and especially in football, where the whole eleven must pull together heart and soul in every play, the cultivation of patience and endurance and the training for obtaining good from both victory and defeat, are experiences of inestimable value for the impending struggle in later life.

The necessity of thinking quickly, thinking deeply and accurately, grasping opportunities, and of thinking, deciding and acting almost simultaneously, makes of football a course of mental training compared with which I challenge any professor in college to show an equal.

The following letter is written by a graduate who is now studying at Johns Hopkins University:

As to the advantages or disadvantages of athletic sports to the college student, I may say that my point of view at present is vastly different from that which I had as a college man. I run the risk of being called severe, but in the light of my first five years out of college I honestly think that certain features of modern college athletics are greatly overdone.

I think that there is too much of a certain publicity given to college athletic contests. This reacts on the students engaged in these public exhibitions. I am sure that few men, at an early age, can view in the proper perspective the surging thousands, the excitement of physical contest, or the strength of the enthusiasm of youth.

Most successful college athletes must remodel themselves in after life.

I believe the games themselves are exceedingly good. Football is really a dangerous game. I once say a young man's leg broken just above the ankle as neatly as one would break a pipe stem. This man will limp all the rest of his life. Sometimes such injuries seem to outweigh all possible good effects of the sport.

But these sports have come to stay. There is not the least doubt that at present they are both advantageous and highly disadvantageous to the students.

The following is from a member of the Law School, and the last one submitted is from a member of the Junior class of Adelbert College:

When I came to college I was conscious of the facts, first, that all my bodily organs were approaching maturity, and secondly, that systematic exercise produces uniform bodily development. Undoubtedly the college authorities were agreed on two propositions: that students should exercise their bodies, and that in order to make this exercise beneficial it ought to be regular and systematic, which accounts for compulsory gymnastic exercise in the curriculum.

But the gymnasium to me was a place for those who seek exercise for amusement and desire only friendly competition. Daily routine work was in itself a bore, and were it not for the championship of the numbers interested, would have been devoid of any attraction.

In college athletics I saw a different field of muscular activity in which my bodily development plan could be more beneficially and more successfully carried out. I found in the athletic sports of track and field bodily exercise which was interesting and attractive, that I had a desire to take such exercise with gladness, and that it never felt burden-If I were asked the reasons for such opinion and feelings, I might give—first, that college athletics are openair exercises; secondly, that in consequence of the reciprocal action of mind and body, the most benefit can come only when the exercise is accompanied by mental occupation, my mind was interested while my body was engaged; thirdly, these sports furnished a mental stimulus in setting up an object to be striven for-an object of strength and skill, the object of honor of victory and supremacy which may not be of great worth, perhaps, but still an honor to the student mind-all these crystallized into an ambition to secure representation and recognition on the teams participating in inter-collegiate struggles for athletic supremacy.

You may inquire what faculties of the mind were benefited or developed. Good brains contribute quite as much to success as do good muscles, since muscle is directed by brain. Of the many faculties of the mind which enter into athletic sports a few might be mentioned, as courage, resolution, perseverance, the faculty for organization and executive power. As to character, success in any athletic sport is inconsistent with a life of debauchery or irregular habits. To enter upon a course of training is to voluntarily adopt methodical habits of life, and one must economize and systematize his time as also must he give faithful obedience to

recognized authority. Athletics are one continual discipline of effort and self-denial.

But to drop the individual and take up the relation of athletics to the student body, it can easily be observed that the various branches of sport furnish a motive for combined action and legitimate opportunities for free play in the develoption of college patriotism. They conduce to good order in developing university organization which is antagonistic to and moderates class and departmental antipathies. This student organization is bound together sometimes by a common enthusiasm, at other times by a common sympathy. Again, athletics furnish opportunities for the instructor to meet his students as men interested in a common good which tends to warm up the chilling reserve of the class-room. To the student body athletics make epochs in the history of their college life.

Since I have given you the observations of my experience, it ought to be added that they pertain and relate equally to all the branches of athletic sports in which I have indulged. But in regard to the disadvantages of athletics, I may seem prejudiced when I say that but one has come to my notice. Many debit to athletics evils which do not belong there. The one great disadvantage or evil arises from a failure to economize time. An observance of a strict economy will not let the hours adopted for daily exercise interfere with the maintenance of a good standard of scholarship, neither will it permit of an injurious amount of exercise.

The three college sports of which I can speak from experience are baseball, football and track athletics. The last two of these I have participated in during two years in secondary school and three years in college, while the first mentioned I have not played in college. I shall speak of these three separately, if I may.

There appear to me to be three disadvantages in football: (1) All successful players. I believe, face the temptation of the game becoming of too absorbing interest. If a player could place his thoughts on the game as he enters the athletic field and take them off as he leaves the field, then too much time would rarely be given to it. But few men can do this at certain periods of the season. Yet I cannot help but think that this temptation offers opportunity for discipline, for in life does not a man go through periods of excitement when he needs most to be able to buckle himself down to calm, steady work? But most men play each game many times, once in actuality, many times in forethought, and as often in after thought; and the forethought and afterthought games are usually played in the class-room. Football is a rough game, though it is not a murdering game, as many would have us believe. In my mind, an accident in football resulting in death is as rare as is a fatal fall in the gymnasium or a death blow from a baseball over the heart. Abolitionists of the game find their best arguments, not in the occasional death, but in the comparative frequency of wrenched joints, torn ligaments and bruised muscles, for there is no denying these are common. (3) Not a little anxiety and worry is often caused the parents of players. have known boys who immediately after a big game telegraph their parents that they are unhurt.

The advantages of football, on the other hand, in my mind, are more numerous, but not so easy to speak of definitely. Any sport which requires of the participants, for a degree of success in it, perfect physical condition has strong grounds for appeal to the college man. The time element, that is, the actual time spent in play and training, is decidedly in its favor as an exercise. Now, walking is an excellent exercise for some people, but for the college man it is insufficient. In order that I may get enough exercise from walking I have to spend several hours a day at it, which I

cannot spare. Then, too, by the time a man is old enough to be in college he can walk without concentrating his thoughts on it, and consequently does not get any mental rest or change. But in football, in order for a man to be in the best shape for the Saturday's game, he cannot practice hard more than one hour each day, and, to be sure, while he is playing his thoughts are wholly concentrated on the game.

In my five seasons on the gridiron I have met with no serious accident to myself, and have witnessed but one to anybody else. I have had, however, my nose broken and my ankle wrenched sufficiently to keep me on crutches for several days. Yet in my own case I can seriously say that I would have been willing to undergo a dozen such things for the benefits I have received. I now have a strong, healthy body, which, I can say with moral certainty, I would not have had had it not been for my systematic training on the athletic field, and which, indeed, my friends saw the least indications of my having five years ago.

Track athletics have few disadvantages. I can see no serious consequences for the track man, excepting the long distance man. By the long distance man I mean he who goes into races of a quarter-mile and upwards. Even he has little to fear from daily practices, but sometimes amidst a great cheering crowd he overtaxes his strength. I take it, the fault lies in his not having trained properly so as to be able to judge carefully his pace. The physical director of a college should see that an untrained man shall not enter a long run on field-day.

From the standpoint of time and opportunity of concentrating the mind, track work is even more fitted to the busy student than football. Rarely a man can train over a half-hour a day without becoming what we call stale. Ten minutes of hard work commonly bring the best results. This time does not, of course, include rubbing, etc.

But not a small part of the good derived from these sports lies in the fact that they force good moral habits onto the participants. I know of many men who are habitual smokers who leave off the practice during training seasons. The same is true of the smaller number who use strong drink. Sometimes the sentiment along this line is so strong that a man in training considers it a disgrace to be caught smoking. I cannot say that training seasons often cause men to leave off these habits permanently, yet the advantages are evident, for the man who gets his body into good physical condition twice, or even once a year, is pretty safe from a slow run-down.

There is little to be said against baseball, yet I cannot think it is so deservedly popular with students as the two other sports. My reasons are (1) at present it is professional, and (2) it takes too much time. There is nothing to prevent the baseball student from spending his whole afternoons on the field, and commonly the schedule is so large that a player must be out of the city considerable of the time. (3) Baseball men rarely feel under obligation to regulate and better their habits, for the emphasis is laid not on the condition of the whole body but on a throwing arm, hard hands, and an accurate batting eye.

Upon the basis, therefore, of evidence presented by graduates who have themselves taken active part in athletic sports while in college, and especially in football, I desire to submit certain inferences touching the advantages and disadvantages of football. Among the evils to be noted are the following:

- 1. Danger to life and exposure to injury.
- 2. Temptation to fraud in making up teams.
- 3. Temptation to betting.
- 4. Temptation to roughness.

- 5. Enthusiasm becoming so great as in certain conditions to approach a form of hysterics.
- 6. Disadvantages, though slight usually, for the scholarship of certain players.
  - 7. Too great frequency of games.
- 8. The inability of athletic associations to handle properly large sums of money.
- The public exposition of young men who are primarily students.
- 10. Reports in newspapers giving false interpretations and false impressions of collegiate values.

These evils and others are to be lessened or wholly eliminated. For the sake of such elimination I venture to offer these suggestions:

- I. Let the idea of gentlemanly sport be strengthened. This ideal is not victory, but sport itself. College teams and students who support those teams are altogether too eager to win. The American college athlete is more inclined than his brother at Oxford and Cambridge to make athletics an end and not a means—too much inclined to make it work and not recreation, a vocation and not an avocation.
- 2. The establishment of this ideal will eliminate the temptation to use as players men who are not genuine students. The evil of professionalism has vastly diminished and is not found in many colleges. It should not be suffered to exist in a single one.
- 3. The organization which conducts football and other sports, consisting usually of representatives of the faculty, of the student body, and, frequently, graduates, should be the ablest, wisest and most effective administrative body. In the selection of its members too great care cannot be exercised.
- 4. Emphasis should be placed upon competent medical supervision or direction. It would be well for each man who

plays football upon the regular team to present a medical certificate of his competency to play.

- 5. Emphasis should also be placed upon careful scholastic supervision. Every man who wishes to play should be required to maintain at least reasonable standing in his classes. This is the rule in Adelbert College.
- 6. A sufficient number of officers should be upon the field to detect all off playing and unnecessary roughness, and these officers should have sufficient power to enforce their decisions.
- 7. A fitting training of the members of all teams should be insisted upon. A training which is irregular, a training which is not adjusted to the degree of proficiency or the lack of proficiency of those being trained, a training which does not represent an ascending movement from the less severe to the more severe, is bad. A training which is adjusted to the needs of those who are being trained; a training which begins low, rises slowly and rounds off with reasonable vigor and executive facility eliminates many physical risks and evils.
- 8. Care should be taken to keep down the number of games which are played. Most teams play too many games, especially too many teams play too many hard games. Hard games should be limited to not more than one a week for the six or seven weeks of the playing period. No team can continually play more than one hard game oftener than every six days. Other games may be played, but they should not be hard; in fact, they should be of the nature of practice games.
- 9. I also beg leave to suggest it would be well to confine the membership of teams to the students of the undergraduate college. Football is a college and not a professional school game. It belongs to the college age of development. The age of the professional students is at least an average of two years or three years beyond the age of the

college graduate. The professional student does not need that physical and intellectual development which football is supposed to give as does the college student. The current rule that no man shall play football more than four years represents the feeling that these four years should cover the collegiate period only.

The number of students who play should be increased. The number of men, of course, who can play upon the first or second teams is limited; but the number of men who can try for these teams is unlimited. Every man in every American college for the two months of each opening year, to whom the doctor can give a certificate of physical soundness, should play football. In a college in which gymnastic work is required football might be used as a substitute for the first two months, as in the last two months of the year track athletics are made a substitute for gymnastic practice.

I desire particularly to call the attention of the Boards to the statement made by the acting treasurer of the condition of the funds. 'A careful examination will prove enlightening and impressive.

It is pleasant to report that there have been formed in the current academic year alumni associations in Washington, Cincinnati, Columbus, New York, Indianapolis, and Chicago. These associations have sprung up almost spontaneously under the wish and enthusiasm of the graduates and former students of the University living in their neighborhood. They represent a positive increment of force for the University and for the higher things of life. The loyalty of the graduates of the College and University is a valuable asset.

I wish to commend to you the publication of the Western Reserve News, which has from week to week served as a means of communication between the different departments, and has also represented some of the main facts of the life of the various departments. Twelve hundred copies have been published each week which have gone to all members of the University—trustees, faculty and students—and to such alumni and others as have subscribed for the publication.

In respect to its constitutional relations several types of the American college or university are emerging. One type is seen in institutions of private foundation and private support. This type is usually representative of a church. type is the oldest and the most numerous in its examples. A second type is that of the state university. This form is represented in institutions usually organized under the Morrill Land Grant of 1862, but which has received chief support through the annual appropriations made by the state in which the institution itself is situated. A third type is seen in a university established in a city and to which the city as a legal corporation contributes. This type is far less numerous in its examples than is the state university. A fourth type represents institutions founded through the state by individuals and supported by individuals. It is at once the most personal and the most public of all educational organizations. It depends upon the whole people in their unofficial relationships. It depends upon a few individuals, primarily the trustees, to whom it looks for guidance and support. Of this fourth type Western Reserve University is an example. Although Christian, no church is behind it. Although among the earliest established in Ohio, it has never received a dollar from public taxation. Although in the metropolis of Ohio, Cleveland, the municipality does not contribute toward its support. Its present and its future

depends upon the people and depends in particular upon its Board of Trust. The loyalty of the members of the Board of Trust and the allegiance of the people to it give ground for the assurance that the growth of the past is only an earnest of the greater growth and fruitage of the future. Upon you, gentlemen, depends the present and future of Western Reserve University. Happy is an institution committed to those so worthy of bearing great responsibilities.

With great respect, I beg to remain,

Very truly yours,

CHARLES F. THWING,

President.

Cleveland, 10 June, 1902.

## REPORT OF THE DEAN OF ADELBERT COLLEGE.

The following table shows the courses as taken for the year 1901-1902:

# FIRST HALF-YEAR.

Courses.	No.	Subject.		Juniors	Sopho- mores.	Fresh- men.	Total.
Bible	1	Life of Christ				58	58
"	3	New Testament Greek		1			1
Biology	2	Zoölogy		I			I
"	3-4	Zoölogy	2	4			6
Chemistry	I	Elementary			19	8	27
"	2	Inorganic		3	6	15	24
"	4	Metals	1	5			6
"	6	Organic	4	3	11		18
"	7	Quantitative	2				2
"	8	Physiological	1	3			4
Economics	I	Elements	I	IO	18	I	30
	3	Money	7				7
"	9	Historical Politics	II				11
English	1	Rhetoric				58	58
"	2	Theme Writing			48	I	49
"	4	Daily Themes	IO	15	••	•••	25
"	6	Forensics	1	I	1		3
"	10	Chaucer and Spenser	1	6	6		13
"	11	Shakespeare and The Drama	2	6	1		9
"	13	Collins to Keats	6	1			7
"	14	Tennyson	II	1	1		13
"	15	American Literature	2	11			13
French	I	Elementary	3	13	31	14	61
"	3	19th Century Texts	2	10	6	I	19
Geology	I	Mineralogy	I	1			2
" "	3	Dynamical and Structural .	8	6			14
. "	5	Physiography	3	1	18		22

#### FIRST HALF-YEAR.

		TINDE MILLE EMILE.					
Courses.	No.	Subject.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Total.
German	I	Elementary			I	31	32
"	2	Masterpieces		1	I	11	13
"	3	Second Year		3	31	7	41
"	4	Author Course	I	8	II		20
"	10	General	4	4	I	1	IO
Greek	I	Homer			I	23	24
"	3	Drama			8		8
"	7	Philosophy	I	5			6
History	I	Middle Ages	5	9	31	1	46
"	4	Reformation	6	3	2	1	12
"	7 {	Pol. and Const. History	13	4		I	18
	. (	of U. S.	-3	7	• •	•	
"	15	Diplomacy	13	I	• •	• •	· 14
	16	Roman	1	4	• •	• •	5
Latin	I	Livy	I	• •	• •	53	54
"	3	Horace	• •	I	13	I	15
"	6	Lucretius	2	4	• •	• •	6
Mathematics	I	Plane Trigonometry	• •			57	57
11	4	Algebra		I	29		30
44	5	Analytic Geometry	5	5			10
"	8	Calculus	2	2			4
**	IO	Quaternions	3	• .	• •		3
Philosophy.	I	Psychology		32	1		33
" .	2	Anthropology	4	10	1		15
" .	5	Ethics	21				21
" .	6a	History of Philosophy	7				7
" .	10	Advanced Psychology	10				10
Physics	I	Mechanics	1	2	6		9
	A	Lat. Sc. Freshmen				IO	10
"	5	Electricity and Magnetism.	3				3
Spanish	I	Elementary		4	1		20
-		•	-	•			

#### WESTERN RESERVE UNIVERSITY. 61

		SECOND HALF-YEAR.					
Courses.	No.	Subject.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Total.
Astronomy .	I	Descriptive	18	5	9		32
Bible	4	Hebrew		I	• •		1
Bibliography	2	Reference Work	• •	2			2
Biology	I	Elementary		I	16	••	17
"	3-4	Zoölogy	2	4			6
"	6	Histology			I		I
"	7	Embryology	5	5			IO
"	10	Botany		I	I		2
Chemistry	2	Inorganic		2	6	14	22
"	5	Qualitative	1	8			9
"	6	Organic	3	2	11		16
"	7	Quantitative	2				2
"	9	Physical	2				2
Economics .	2	Economic Problems	1	2	6		9
".	4	Public Finance	6	4	4	٠	14
".	6	Railroads	7	2	7		16
" .	10	Comparative Politics	12	1	•		13
English	1	Rhetoric			2	59	61
"	2	Theme Writing		1	46		47
	5	Daily Themes	7	IO	ī		18
"	7	English Prose		6	2		8
"	13	Collins to Keats	I	5	2		8
"	17	The English Novel	2	8	1		11
"	19	Shakespeare	10	6			16
"	20	Browning	5	6		1	12
"	30	Elocution		1	4		5
French	2	Elementary	2	11	26	14	53
"	4	Modern Texts	2	8	4		14
Geology	2	Mineralogy	ī		•	• • •	I
"	4	Historical	9	6	••	••	15
German	4 I	Elementary			1		32
"	2	Masterpieces	••		1	31 11	-
"	_	Second Year	••	_	_	8	13 41
44	3	Author Course	• •	3 6	30 8	_	•
	4	General		_		••	14
	11	Attic Orators	3	5	1	••	9
44	2	-	• •	I	2 6	24	27 8
	4	Plato	I	1	_	••	-
"	6	Thucydides	• •	2	• •	••	2

#### SECOND HALF-YRAR.

		OHCOUP MILE I KEEK					
Courses.	No.	Subject.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Total.
History	A	For Lat. Sc. Freshmen				16	16
"	2	Modern Europe	5	7	28	1	43
"	IOA	U. S. 1860-'85	16	4			20
"	ıob	American Politics	11	IO	5	I	27
"	17	Church	3	1	3		7
Latin	2	Plautus	I		2	55	58
"	4	Tacitus		1	13	••	14
"	8	Silver Age	I	3			4
Mathematics	2	Analytic Geometry		I	2	61	64
**	6{	Trigonometry and Sur- veying.	I	2	26		29
44	7	Calculus	1	4	8	1	14
44	9	Theory of Equation	1				I
Philosophy.	3	Logic		28	33	1	62
"	4	Introduction	3	19			22
	6а.	History of Philosophy	8				8
" .	7 <b>a</b>	Philosophy of Religion	II	I			12
"	7b	Philosophy of Society	13		••		13
Physics	2	Electricity		2	5	2	9
"	6	Electricity and Magnetism.	3				3
"	7	Mechanical Drawing	5	3		I	9
"	10-11	Manipulation	2				2
Spanish		Prose and Plays	10	2	1		13

# REPORT OF THE SECRETARY OF THE FACULTY OF ADELBERT COLLEGE.

Four meetings of the Permanent Officers have been held during the year ending May 7th. The only business transacted by this body has related to appointments on the staff of instructors, and its recommendations have already been transmitted to the Board through the President.

The General Faculty, during the same period, has held nine meetings. Almost nothing has come before this body except routine business. The recommendation with regard to electives in the Law School has been discussed in the President's report. It may be of interest to note that a rule respecting the eligibility of students for athletic teams has been adopted, according to which no student can play for more than four years. Further, the rules of the Western Intercollegiate Conference with reference to general athletics, have been adopted.

Respectfully submitted,

SAMUEL BALL PLATNER,

Secretary.

# REPORT OF THE REGISTRAR OF THE COLLEGE FOR WOMEN.

#### FIRST HALF-YEAR, 1901-1902.

Subject.	Instructor.	Seniors.	Juniors.	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total
Anthropology	Professor Curtis	29				3	82	32
Art, History of	Professor Fowler	16	18			2	36	36
Bible 1	President Thwing	8	1	1	60	4	69	
" 3	Mr. Howell Haydn	8	1	46		1	51	161
" 4		1	40				41	
Biology 2	Professor Herrick	2				1	8	10
" <b>4</b>	Dr. Griffin	4	1	2			7	
Chemistry 1	Dr. Gruener	1	21	11		1	84	
" 2	Dr. Tower	2	9	8		1	15	58
·· 7	Professor Morley	4					4	
Beonomics	Assoc. Prof. Walker	7	6	1		1	15	15
English 1	Assoc. Prof. Thorndi	ke .		1	58	2	61	
	11 11 11	5	6	18		7	31	
" 5	11 11 11	6	1				7	
" 8	Professor Hulme		1	1			2	186
" 13	11 11	2	1				8	
" 14	Assoc.Prof.Thorndil	te 17	26			6	49	
" 16	Professor Hulme		3	22	1	7	33	
French 1	Dr. Oliver c, Miss Henderson	1	4	5	28	6	44	
" 8	Dr. Oliver Miss Henderson	2	4	22	4	3	<b>3</b> 5	87
" 7 <b></b>	Dr. Oliver	2	8	8			8	
Geology 3	Professor Cushing	15	9	1		1	26	26
German 1	Dr. Fife			8	18	1	27	
" 3		4	8	14	6	2	29	122
" $5$ $\begin{Bmatrix} 1 & 1 \\ 2 & 1 \end{Bmatrix}$	Div. Dr. Fife Div. Dr. Meyer	6	6	8	15	2	82	
" 7	Professor Deering	4	5	7	3	8	22	••
" 10	** **	1	3	7	1		12	
Greek 1	Professor Fowler				14		14	
" 8	** **			9	••		9	27
" 5	Professor Fuller	1	2	1			4	

## WESTERN RESERVE UNIVERSITY.

Subject.	Instructor.	Seniors.	Juniors.	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total
History 12 Di	vs. Dr. Agnes Hunt			17	15	4	36	
" 3		5	6	6			17	118
" 5		24	16	1		8	44	
" 14	Mr. Severance	9	6	1			16	
Hygiene	Dr. Boggs			1	58		54	54
Latin 1	Professor Perkins	2			54	5	61	
·· 8	44 44			37		2	39	125
" 6	44 44		16			1	17	
16	Professor Platner	6	1			1	8	
	b, Professor Palmié Mr. Dickerman	1	3	6	54	5	69	82
" 5	Professor Palmié		1	10			11	
" 7	** **		1				1	
	"	1					1	
Music	Mr. Clemens	5		2		2	9	9
Philosophy 2 a, t	, Professor Aikins	2	23	12	1	3	41	68
" 3	14 44	17	8			2	22	
Physics 1 $\begin{cases} 1a \\ 10 \end{cases}$	Fresh., Dr. Reichmann Soph., Prof. Whitman	2	1	36	10	1	50	56
" 1 Jr	Professor Whitman	2	8				5	
" <b>5</b>	Dr. Reichmann	1					1	
Spanish	Assoc. Prof. Bourland	8	2	4		1	10	10

### SECOND HALF-YEAR, 1901-1901.

•							•	
Subject.	Instructor.	Seniors.	Juniors.	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total.
Art, History of	Professor Fowler	6	12			1	19	19
Astronomy	Professor Whitman	1	2			1	4	4
Bible 2	Mr. Howell Haydn	1	1	1	56	6	65	
" 5	" "	1	88			1	40	108
·· 7	"	8	••				8	
Biology 1	Professor Herrick	5	28	21		3	57	
" 4	Dr. Griffin	8		••			3	67
" 9	Professor Herrick	1					1	
" 12	Dr. Griffin	6					6	
Chemistry 3	Assoc. Prof. Gruener	4	6	4	••		14	
" 5		1	••	••			1	21
Chemistry 4	Ass't Prof. Tower	8					3	• ••
Chemistry 8	Professor Morley	8					3	
Economics	Assoc. Prof. Walker	8	••	1	••		4	4
English 2	Assoc. Prof. Thorndi	ke .	1	1	57	8	62	••
" 4		••	7	5		1	13	
" 6		5	1	••	••	••	6	
" 10	Professor Hulme	••	2	1			8	••
" 12		4	3	2	2	2	13	206
" 15	Assoc. Prof. Thorndi	ke 8	17	••	••	2	27	••
" 17	Professor Hulme	••	7	30	2	7	46	••
" 19	44 44	4	5	3	••	1	18	••
" 23	44 41	8	11	••	••	4	23	
French 2 $\left\{ \begin{array}{l} a, \\ b, \end{array} \right.$	Dr. Oliver Miss Henderson	2	8	10	27	4	46	
" 4	Dr. Oliver Miss Henderson	1	4	22	4	2	83	86
" 7	Miss Henderson	1	1	1	••	1	4	••
" 12	Dr. Oliver	••	••	8	••	••	8	••
Geology 4	Professor Cushing	19	8	• •	••	••	27	39
" 5		2	8	2	••	•:	12	••
German 2	Dr. Fife	• •	••	7	18	2	27	••
4		2	1	17	6	1	27	••
" 6	Dr. Fife Dr. Meyer	5	4	8	12	2	26	126
" 8	Professor Deering	8	4	8	8	3	21	••
" 9		2	10	6	1	8	22	••
" 16		2	1	••		••	3	••
Greek 2	Professor Fuller	••	••	•:-	18	••	13	
" 4	Professor Fowler	••	•:	7	••	••	7	22
" 6		••	1	1		٠.	2	••
History 1	Dr. Hunt	٠.	••	18	10	6	84	105
*		1	٠.	11	18	8	28	125
*		3 27	7	4	 8	·. 2	14 49	••
V		2/	16 8	2		2	16	16
Hist'l Bibliograp'y	Mr. Severance		0	2	••	-	10	70

#### WESTERN RESERVE UNIVERSITY.

Subject.	Instructor.	Seniors.	Juniors.	Sopho- mores.	Fresh- men.	Special	Total.	Grand Total
Latin 2	Professor Perkins	2			53	6	61	
" 9				37		2	39	
" 15	44 44	12				1	13	121
" 19	Professor Platner	1	7		• •		8	
Mathematics 2	Professor Palmië	••	2	5	49	5	61	
" 6	" . "		1	8			9	
" 9	" "	2 .	1				3	73
Music	Mr. Clemens	4		3		2	9	9
Philosophy 1	Professor Aikins		2	19	2		23	
" 4	44 44	8	12	2		4	21	
" 9	44 44	8	8				6	50
Physics 2	Professor Whitman	••	1	1	1		3	
" <b>6</b>	Dr. Reichmann	2					2	
" 11	Professor Whitman Dr. Reichmann	1		1			2	
" <b>12</b>	Dr. Reichmann	1					1	8
Reference Work	Mr. Williams	2	2		2	4	10	10
Sociology	Professor Curtis	22	1			1	24	24
Spanish	Assoc. Prof. Bourland	1	1	3		1	6	6

# Respectfully submitted,

BERTHA L. TORREY,

Registrar.

# REPORT OF THE DEAN OF THE GRADUATE SCHOOL.

The end of the current year marks the close of the first decade in the history of the Graduate School. Such a time invites to retrospect, and a brief summary of the development of the school may be fitting in this place. A statement of the beginnings of the graduate work in the University was made in this report five years ago, and need not, therefore, be repeated. The following table shows the essential facts for the past ten years:

	Number of Students.	Men.	Women.	umber of olleges epresented.	Western Reserve Graduates.	umber of Aructors.	umber of ourses fered.	Degrees	Conferred
	žž	×	≱	žŬĸ	ĕઍઉ	ž5	žŏδ	A.M.	Ph.D.
1892-3	8	7	1	8	6	20	87		
1893-4	11	8	3	5	8	25	107	4	
1894-5	18	12	6	5	18	26	125	5	2
1895-6	13	8	5	7	7	25	125	1	
1896-7	30	14	16	19	7	29	127	2	
1897-8	27	15	12	15	7	27	128	11	
1898-9	27	16	11	11	12	82	132	5	
1899-00	18	10	8	5	11	81	125	4	
1900-01	20	12	8	12	9	82	130	7	
1901-02	18	11	7	12	5	82	182	4	

The table shows the natural and necessarily slow growth and the sometimes considerable fluctuation in the numbers of the department. It does not appeal to students in general, but only to college graduates, and among them only, or largely, to those who mean to become teachers. Among these again many are deterred from further study by lack of means. This points at once to the most pressing

need of the school—some scholarships or fellowships to help able but needy students. If a few small funds of this sort could be established, great good could be done.

It is evident that the opportunity for advanced work is being more and more appreciated. Many of our own graduates have remained for further study before securing positions as teachers, others try to do a little advanced work in connection with their teaching, while other students have given up positions as teachers and come to us for higher courses.

It is very gratifying to note the increasing number of our students, who are settling round us in important positions in the schools. It has been impossible to follow them all, but of those whose career we know, 81 are at work as teachers, 49 in Cleveland and vicinity, 68 in Ohio; 26 are in high schools, 18 in college positions. Of some 45 who have gone out with advanced degrees about 35 are in high positions as teachers.

A good many of our students, after a year or so with us, have gone to the larger opportunities of eastern colleges. Some 15 students have gone thus to Harvard, Yale, Columbia, Pennsylvania, Johns Hopkins and other universities, and have always found ready recognition. In many cases special concessions have been made to them on account of their good training.

During the current year, eighteen students, seven women and eleven men, have been enrolled. Five of these are our own graduates, while ten other institutions, among them the University of Michigan, University of Cincinnati, Chicago University, Wesleyan University, Smith College, Oberlin College, and others, are represented. Of the whole number one is in the fourth, two in the third, five in the second year of graduate study, while ten began their work as new students last September. The number of instructors offering courses is thirty-two, the number of courses offered one

hundred and thirty-two. There are four persons who received the Master's degree this year.

In the different departments instruction has been given as follows:

In Biology to five students, in Chemistry to one, in English to six, in French to one, in German to five, in Mathematics to two, in Philosophy and Pedagogy to five, in Physics to three.

The Graduate Club has continued its work and has had several interesting meetings, addressed by the students, by the President and by members of the Faculty and by the school authorities on subjects of concern to young teachers. The club was again represented by its delegate at the meeting of the Federation of Graduate Clubs held this year in Washington during the Christmas holidays.

This year's work more than ever shows the value of the Graduate School and its opportunities to the teachers in the city. This year three college instructors, five high school teachers and nine grade-school teachers have come to us for advanced study in their chosen subjects. There is no doubt that in thus teaching the teachers we are very directly and effectively carrying the influence of the University into the schools they come from. Every effort is being made to strengthen the ties of sympathy thus formed, and it is very gratifying to note the interest of the school authorities in these plans.

Respectfully submitted,

R. W. DEERING,

Dean.

### REPORT OF THE DEAN OF THE MEDICAL COL-LEGE.

I have the honor of submitting to you the following report of the Medical Department for the academic year of 1901-2.

The total number of students during the year was 126, divided as follows:

Fourth year class	. 42
Third year class	. 35
Second year class	. 37
First year class	. I2
Total	. 126

Of the 126 men, thirty, or 23.8 per cent., have college degrees. Ten have had three years of college work, eight have had two years, and twelve have had one year as preliminary training, a total of sixty, or 47.62 per cent.. It will be noted that the men who have had college degrees have increased from 18.38 per cent. last year, to 23.8 per cent. this year, and that the percentage of men who have had one or more years of college work has increased from 46.32 per cent. to 47.62 per cent. Of the twelve men in the first year class, with one exception, all have a literary degree, or are students in the Senior class at Adelbert College. The following States and countries are represented in the student body: Colorado, Indiana, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Wisconsin, China and Persia.

Beginning with the current year, the requirement of the completion of the Junior year in a literary college became effective. As had been expected, the number of students was

very materially diminished, the number dropping from thirty-seven in the first-year class in 1900, to twelve in 1901.

It will be noted with satisfaction, however, that there has been a large number of candidates for advanced standing. Whereas the present fourth-year class has forty-two men registered, the corresponding, or third-year class, last year had thirty-seven; the present third-year class has thirty-five as compared with thirty-three in the second year, and the present second-year class has thirty-seven as against thirtyfour in last year's Freshman class. The total number of new men admitted to advanced standing is thirteen; the total number in last year's classes failing to return is six, a total difference of seven men. Every one of the upper classes is, therefore, larger than the corresponding class of the year previous. The total number of new men entering the institution is twenty-five. It has been gratifying, also, to note that the quality of work done by this class this year has been much superior to that accomplished in other years. The men who have been engaged in teaching this first-year body of students are enthusiastic over the character of the work performed in the different departments. A matter of great interest in connection with the increased requirements for admission has been the decision of a number of high school men to take college work before undertaking the study of medicine, who under former conditions would have entered the Medical College directly from high school.

In addition to the gentlemen who entered upon the work in the teaching body, as indicated in the last annual report, two have been added during the current year, viz.: Dr. L. W. Ladd, as the Leonard Hanna Lecturer of Clinical Microscopy, and Dr. Roger G. Perkins, as Lecturer on Bacteriology and Assistant in Pathology. These gentlemen have given regular courses through the year.

The clinical facilities available for the use of the school have been increased by the building and opening of the con-

tagious ward at Lakeside Hospital, by the opening of the Women's New Surgical Building at Charity Hospital, with a capacity of sixty beds, and by the establishment of new quarters for the Maternity Home in the old Severance homestead, at Woodland and Longwood. This latter has been equipped at a considerable expense, very much enlarging the facilities for work along its special lines, there being at present something more than one hundred beds available.

St. Alexis Hospital has also been used to some extent for clinical instruction.

The filling of the H. M. Hanna Fellowship in Physiology and Pathology has been accomplished by the appointment of Dr. Peskind, one of our own graduates, who has spent nearly, a year in foreign study. Dr. Peskind will work in the Department of Physiology.

During the year the new clinical laboratory was equipped from the fund of \$2,000 previously contributed by a friend of the institution, and the library of Dr. Stuart was increased by the expenditure of \$1,000, the special gift of a friend for this purpose. This was a very great improvement in the value of the library in the department of Physiology, and it is of interest to know that this library has been quite extensively used by the students during the year. Dr. Stewart was able to add from this fund more than 300 volumes on the subject of Physiology.

A considerable number of students have made use of the books in the Cleveland Medical Library Association, under special arrangement, this library adding greatly to the facilities for medical teaching in Cleveland. In our college library, care has been taken not to duplicate works found in the Medical Library.

It has been a matter of gratification that \$500 of the Rockefeller Fund for research work was assigned to the department of Pathology in this institution by the committee having charge of this fund, for the purpose of following out

special research work in this laboratory. The work has been directly in charge of Dr. Perkins, under the supervision of Dr. Howard, the head of the department of Pathology.

During the year the following important works were published by members of the teaching body of the Medical Department: "A Text Book of Pharmacology" of nearly 900 pages by Dr. Sollmann, Professor of Pharmacology. "A Treatise on the Acute Infectious Exanthemata," a volume of 400 pages written by Dr. W. T. Corlett, Professor of Dermatology, and "A Laboratory Manual of Urinary Analysis," by Dr. Robert A. Hatcher, Assistant in the department of Pharmacology. The text book on Physiology by Dr. Stewart has passed through its fourth edition, and is now used as a text book in many schools in this country and abroad. Besides these there have been numerous other less pretentious contributions.

The total receipts from student fees from July 1, 1901, to July 1, 1902, will be about \$15,000. The expenditures up to May 1st, exclusive of salaries, have been about \$15,000.

According to the report of the Treasurer of the University, there will be a deficit at the end of the year of at least \$3,000, which will have to be raised by private subscriptions. We have been indebted likewise to special friends of the University for contributions during the past year towards the salary of the Lecturer on Bacteriology.

The high standard of preliminary requirement for admission to the school will necessarily, for some years, curtail the income of the college from student fees, and this deficiency will require to be made up by private contributions or by increased endowment for this purpose. Without the clinical teachers receiving any compensation there will be an annual deficit of from \$5,000 to \$10,000 to properly carry on the laboratory instruction of the school and keep up its equipment, so that the necessity of increased endowment becomes imperative if the school is to attain the importance to

which it is justly entitled. There have already been established as many laboratory departments as would seem advisable for a considerable time, and the problem at present is the proper manning and equipment of those now established as teaching departments. It has been heretofore stated that for the best clinical teaching it will be necessary to have paid men in order that the best possible work may be accomplished along these lines as well as in the laboratory departments. Without compensation the first object of every clinical teacher must be his livelihood. If anything suffers, therefore, from lack of time, it is sure to be his teaching rather than his private work. This already tells somewhat in the difficulty of keeping men in their appointments as teachers, and holding them closely to their work, so that not infrequently hours are omitted from lack of time on the part of the instructor. Even a small compensation given for the work of teaching would give a hold upon the time of the teachers which otherwise it is impossible to secure. In the coming year a few hundred dollars is almost a necessity in order to pay a few young men a small salary, \$50 to \$100 each, for spending a large amount of time in demonstrating, especially in the subjects of medicine and surgery. Under the present conditions the permanent income of this department should not be less than \$50,000 in order to pay even moderate salaries for the work done by the present teaching force of the College. In the present status of medicine every live institution must be turning out a large amount of original research work if it is to accomplish its proper function in a community. There are but few men with effective capacity for this kind of work. When one is secured, there should be at his disposal laboratory equipment, assistants, material and library facilities for the proper pursuit of such work. There are a few such men in this school, and their efforts should be seconded in every way possible. The College should have a permanent fund, the income from which could be expended

in procuring various apparatus necessary, and for the purchase of such instrurents as might be required. One thousand dollars a year for such a purpose, would produce untold The necessity for a working library in beneficial results. such a school cannot be too urgently emphasized. A fund of at least two or three thousand dollars per year would be required for developing anything like a moderately good working library in connection with the various laboratories. Without a ready reference to a fairly complete medical library, no school or laboratory can hope to accomplish the best possible results. In the modern methods of teaching, it is important that even the student should have pretty free access to such a library in connection with his daily routine work. In no field of present day educational advancement are there such great changes taking place as in medicine in this country. The philanthropic are beginning to realize the vast problems being studied and solved in the laboratories of research throughout the country, and men of wealth are finding opportunities for permanent investments in lines which are productive in the highest sense in an educational way, and at the same time are of the greatest value in economical and humanitarian directions. This College has the buildings; the hospitals, the organization, the material, and the trained men ready and willing to carry on the highest grade of educational and research work, in a community needing this quality of work. It needs equipment, it needs library facilities, it needs endowment in order to make its forces effective for the benefit of humanity. It should have at least one million dollars of endowment within the next five years, if it is to accomplish its purpose by taking advantage of its present opportunity among educational institutions.

Very respectfully,

B. L. MILLIKIN,

Dean.

# REPORT OF THE DEAN OF THE COLLEGE OF DENTISTRY.

As Dean of the Dental Faculty I beg leave to refer to my report of last year, as embodying matters which should receive attention in the next academic year. The course of study has remained the same as in the year preceding. The number of students, as elsewhere indicated, is large. The order among the students has in general also been excellent. I also wish to emphasize what I have said in former reports regarding the need of larger facilities. This need will be rendered imperative when the course of study is extended to four years.

Respectfully submitted,

HENRY L. AMBLER,

Dean.

# REPORT OF THE SECRETARY OF THE FACULTY OF THE COLLEGE OF DENTISTRY.

### To the Honorable Board of Trustees:

The Dental College is completing its tenth year of existence. It was organized March 5th, 1892, by President Thwing and four dentists, two of whom remain with the institution. The faculty the first year consisted of three professors and four lecturers. It is now composed of eight professors, one assistant professor, four lecturers, four demonstrators and two assistants. Six others have been connected with the college at different times.

When the college opened the first year there were twentyone students in attendance. Each year, except one, there has
been a steady increase in the number of students. During
the session just closing there have been one hundred and
thirteen students, which was an increase of eleven per cent.
over last year. This is the greatest gain in any department
of the University this year. We expect to increase this percentage next fall if our facilities are increased. At this early
date, May 15th, there are fifteen Freshmen students enrolled,
and a total in all classes of ninety-two are registered for the
session beginning in October.

The science of dentistry, which is continuously increasing its scope of usefulness, now requires of its students greater knowledge and ability. To that end the curriculum of the colleges is to be enlarged, and at the commencement of the session in October, 1903, a four year's course will be inaugurated. It is clearly evident that our present quarters, which are too small in some respects, will be entirely inadequate for four classes. It is therefore advisable to prepare for this condition, and purchase property before the price of desirable

property is beyond reach. If the attendance next fall increases, as apparently it will, our present rooms will be much cramped, and before another session thorough renovation and repair are necessary. An increase in number of operating chairs, and many repairs of old ones, will be required before another session. This applies to other apparatus as well. It is remarkable that with the limited amount of teaching facilities that the faculty have done so well. Except for an enthusiastic and hard working faculty this anomaly could not have existed. It has exhausted its resources, and a suitable sum of money should be devoted to these purposes. The faculty have endeavored to develop the college into a first-class institution which the public and the profession demand.

Altogether we have graduated one hundred and seventytwo persons. The most of these were taken into the college without previous knowledge of dentistry. By states and by classes the graduates are distributed as follows:

BY CLASSES.	BY STATES.	
1894	4 Ohio	137
<b>1895</b>	17 Pennsylvania	17
1896	7 New York	4
1897 8	B2 Indiana	1
1898	Wisconsin	1
1899 8	B1 West Virginia	2
1900	80 Iowa	1
1901	28 Minnesota	1
	<ul><li>Massachusetts</li></ul>	1
17	72 London, Eng	1
	Death	8
	Gave up practice	3
	,	
		179

Cleveland contains seventy-six graduates in practice. Others are distributed at Pittsburg, Detroit, Toledo, London, Eng., New York, Syracuse, Utica, Montevideo, Minn., Wassau, Wis.; Dayton, Meadville, Pa.; Youngstown, Akron, Canton, Richmond, Ind.; Oakland, Ia., and many others—in all, about seventy cities and towns.

New York and Pennsylvania have required examinations for practice in their states. All our graduates have successfully passed these tests, with one exception. Of the three who quit practice after graduation, one had been successful in practice two years. Other inducements caused him to relinquish practice. The others could not be successful. The majority are doing well and make useful citizens. In one case one has become Mayor of his town and continues in practice also. Several years ago I made a canvass of the incomes of our graduates the first year and found that they averaged from \$500 to \$1500 the first year.

From the above figures it will be seen that less than two per cent of our graduates have quit practice for reason. This is a very small percentage compared to other professions.

My estimate of all graduates of the Dental School is that fifty per cent are doing well, twenty-five per cent are doing remarkably well and making their mark.

The Alumni Association is unusually strong in its lovalty to the University, and is a great power in directing students to this institution. An alliance has been made with the Northern Ohio Dental Association (the oldest dental society in the world) whereby there will be a union of these two associations this year in holding their annual meetings in the dental college the three days previous to our com-Two hundred dentists are expected at this mencement. meeting. This will serve to enhance the value of the college to the profession and make it a center of dental education. As noted before, the faculty have worked for the reputation of the college. To continue this reputation the absolute needs for teaching purposes require money to purchase complete paraphernalia. It is believed that with the reputation that our college has gained, there is now an opportunity for some high-minded person to establish with his means a dental college having a building and equipment second to

none. We think our faculty is able to perform its function and pledge our support to such an institution.

The college attracted students this year from eleven states of the Union. Quite a number came from Canada. The graduates of previous classes are widely distributed; one is in England practicing.

The Y. M. C. A. workers of the college are preparing to fit up the students' room into a desirable reading room next year.

Respectfully submitted,

W. H. WHITSLAR,
Secretary.

### REPORT OF THE PHYSICAL DIRECTOR OF ADEL-BERT COLLEGE.

The attendance at the gymnasium has been better this year than any previous year of which I have any knowledge. This is the first year that the required course for the Freshmen has been placed on the same basis as the other college courses and credits given. As an evident result the average per cent of attendance was eighty-nine, while it was not more than seventy-five for former years.

There was a very general interest in basket-ball this winter, and throughout the basket-ball season many upperclassmen and men from the other departments came regularly to practice for their class or the University teams.

Mr. Hall, the Captain of the track team, instituted the custom of cross-country running through the winter months and this, combined with indoor training for the other field day events, besides the long distance runs, brought several men to the gymnasium more or less regularly.

A gymnastic team was organized this winter and its eighteen members devoted one evening a week besides considerable time in the afternoons to gymnastic practice. On April 11th this team gave an exhibition which, considering the fact that it was the first, was very creditable. The gymnastic team has agreed to furnish leaders for the heavy apparatus work next year.

More than one-third of the upper-classmen attended the gymnasium with a fair degree of regularity either for one or more of these specialties or simply for the general exercise.

The gymnasium could be made much more serviceable if it were properly lighted with the incandescent electric lights and the bathing facilities were improved. There should also be some addition to the supply of apparatus. However, the need of a larger and better arranged and equipped building for a gymnasium is becoming more and more evident. Very respectfully submitted,

CHAS. J. WEHR, Instructor.

# REPORT OF THE DIRECTOR OF PHYSICAL TRAINING, COLLEGE FOR WOMEN.

Within the last few years gymnastics and athletic games for women have made wonderful strides in gaining large numbers of warm supporters and meeting with less and less opposition.

They have become popular, not as the result of a "fad," but because of the good results shown in the increase of strength and endurance, and the improved physique of the younger generation of our women. Every day new avenues of employment are opened to woman; her sphere is widening, and she must have the stronger physique, the physical and moral courage to meet the demands put upon her.

Educators everywhere will acknowledge the value games may have in any scheme of education, and so during the past year more time has been given to this phase of the work.

The one period of the three required in the week of sophomores and freshmen has been devoted to regular prescribed exercise, given each girl according to her particular need. Besides—the usual graded class work in Indian clubs, wands, dumb-bells, free exercise and some elementary work in the heavier apparatus.

Of the games basket-ball has received the most attention, the subordination of self in the interests of the team, the development of quick perception and judgment, self-reliance, self-control and ability to meet success or defeat with dignity which come from playing this game, have proved it of the greatest value to directors of physical training.

Fencing has also been introduced, but only as optional to those who cared to go to the expense of buying foils.

There have been two classes a week and the girls have worked with it intelligently and enthusiastically.

The usual out-of-door sports: golf, tennis, rowing, tether-ball and walking, have supplemented the regular work.

To further general interest in physical training in the college an athletic association has been organized and at the present time has a membership of ninety-two students. The association has purchased a beautiful cup which is to be contested for each year in a series of inter-class basket-ball. games. It is also the purpose of the association to help the college in improving the facilities for the work in gymnastics which are decidedly inadequate at the present time. The dressing rooms, even with the best of care, are unhygienic; no facilities whatever for proper ventilation, almost no sun, and so limited in space that two girls are obliged to use one locker between them-a locker with only three feet of space. Of the bathing accommodations still more may be said. There are two set bowls and two shower baths in one small room, affording no privacy whatever, where classes of twenty or more girls are expected to bathe after exercise and be ready for a recitation in fifteen minutes.

Healthfulness in our girls must be maintained at any cost and therefore I beg an early consideration of ways and means to make the department what it should be.

Respectfully submitted,

MARY GEORGE CLARK, Director.

# REPORT OF THE LIBRARIAN OF ADELBERT COLLEGE.

On December 23, 1901, the funds available for the purchase of books and supplies for the library amounted to \$6,013.12. This sum included a gift of \$10 from Mr. J. G. White, and one of \$1,000 from Hon. John Hay, received since the publication of our last report. From Col. Hay's gift \$300 was appropriated to the Romance Language department, the balance being turned over to the Library Committee Fund, from which the librarian was authorized to defray the cost of the general periodicals, the periodicals of the departments of Biology, Romance Languages and Latin, and of binding.

The statistics of additions to the library are as follows:

By gift	478	pamphlets. 500
Volumes in library May 1, 1901	2,183 48,171	
Total	45,354	

This number is inclusive of the Kirtland collection of 2,160 volumes, and exclusive of 18 volumes of duplicates received during the past year.

Following are a few of the important accessions:

BIOLOGY—W. Saville-Kent, Great Barrier Reef of Australia; Baer, Ueber Entwicklungsgeschichte der Thiere; Vesalius, De humani corporis fabrica, 1543.

Economics.—Picard, Traité des chemins de fer, 4 vols.; Eden, State of the poor, 3 vols.; Say, Dictionnaire

des finances, 2 vols.; Parieu, Traité des impôts, 4 vols.; Clamageran, Histoire de l'impôt en France, 3 vols.; Dowell, History of taxation and taxes in England, 4 vols.; Say, Les finances de la France sous le 3me république, 4 vols.; Le Play, Les ouvriers européens, 6 vols.; Report of the U. S. Industrial Commission, 19 vols.

ENGLISH—Percy Society Publications, 31 vols.; Facsimile Reprints of the Shakespeare Quartos, 28 vols.; Pepys, Diary, ed. by Wheatley, 10 vols.; Farmer, Americanisms; Cooper, Thesaurus linguae Romae et Britannicae, 1578; Philipps, New world of words, 1678; Howell, Lexicon tetraglotton, 1660; Benson, Vocabularium Anglo-Saxonicum, 1701; Jamieson, Etymological dictionary of the Scottish language, 4 vols.; Scottish Text Society Publications, complete set; the works of Greene, Nashe and Dekker, 26 vols., in the Huth Library; Charles Brockden Brown, Novels, 6 vols.; Gaisford, Etymologicon Magnum.

GERMAN—Bitzius, Werke, 10 vols; Schiller, Werke, ed. Bellermann, 14 vols.; Richard Wagner, Werke, 10 vols.; Jahrbuch des Scheffelbundes, complete set; Ludwig, Schriften, 6 vols.; Indogermanische Forschungen, 10 vols.; Zeitschrift für deutsche Sprache, 10 vols.

GREEK—Furtwängler, Sammlung Sabouroff, 2 vols.; Furtwängler, Die antiken Gemmen, 3 vols.; Herculanensia Volumina, 11 vols.; Fabricius et Harles, Bibliotheca graeca, 12 vols.; Pontremoli & Collignon, Pergame; Aristophanes, ed. Blaydes, 12 vols.; and many standard editions of Greek authors, scholia and word indices.

HISTORY—Engelhardt, La Turquie et le Tanzimat, 2 vols.; Zeller, Histoire de l'Allemagne, 7 vols.; De Maupas, Mémoires sur le second empire, 2 vols; Comte de Villèle, Mémoires et correspondance, 5 vols.; Tuetey, Répertoire générale des sources mss. de l'histoire de Paris, 4 vols.;

Tourneux, Bibliographie de l'histoire de Paris pendant la révolution française, 2 vols.; Palgrave, Rise and progress of the English Commonwealth, 2 vols.; Jesuit Relations and allied documents, ed. by R. G. Thwaites, 73 vols.; Potthast, Bibliotheca historica medii aevi, 2 vols.; Chevalier, Répertoire des sources historiques du moyen age.

Philosophy—Hegel, Werke, 19 vols.; Zeitschrift für Psychologie und Physiologie der Sinnesorgane, 24 vols.; The Open Court, 14 vols.; Hodgson, Metaphysic of experience, 4 vols.; Fischer, Geschichte der neueren Philosophie, o vols.

MISCELLANEOUS—Sturgis, Dictionary of architecture and building, 3 vols.; Fresnel, Oeuvres complètes, 3 vols.; Ozanam, Récréations mathematiques et physiques, 4 vols.; International monthly, 4 vols.

The list of donors of books and pamphlets, May 1, 1901, to May 1, 1902, is as follows:

Acker, Finley. Adams, Henry. Adelphi College. Alabama Geological Survey. Alfred University. American Marathi Mission. Amherst College. Angell, Mrs. E. A. Arizona, University of. Art Metal Construction Co., James- Briggs, W. D. Association of Colleges & Schools Bright, J. W. of the Southern States.

Atlanta University. Auburn Theological Seminary. Baldwin University. Baylor University.

Bemis, E. W. Berry, John M. Besançon, University of, (France). Bingham, C. W.

Blackburn, J. E. Bole, B. P. Boston College. Boston Public Library. Bourland, B. P.

Bourne, H. E. Bowdoin College.

Brigham Young College.

Brooks, F. A. Brown University. Bruce, John E. Bucknell University. Buenos Aires, University of. Buffalo, University of.

Burlington Free Public Library.

Burrows, A. J. Burrows Brothers Co.

Burton, T. E. Byers, J. P.

California, University of.

Cambridge Public Library. Canada Geological Survey.

Canisius College. Capitol University.

Carleton College.

Carnegie Free Library, Minneapolis. Haring, H. A. Chamberlain, Rev. Jacob.

Chicago Board of Education. Chicago, Central Y. M. C. A.

Chicago, University of.

Church, J. E., Jr.

Cincinnati, University of.

Clark University.

Cleveland Public Library.

Cloran, Timothy. Colby College.

Colorado College & Cutler Academy Hodge, Percy.

Columbia University. Conant, William C.

Cornell University. Curtis, M. M.

Cushing, H. P. Cutler, Mrs. Carroll.

Dartmouth College. Davidson College.

Dayton Public Library & Museum. Jaynes, E. H.

Deering Harvester Co. Denison University.

Denver, North Side School.

Dewey, John.

Drexel Institute, Philadelphia.

Eliason, A. O.

Elmira College for Women.

Emerson, O. F. Fargo College. Fowler, H. N. Garson, Jules.

Geneva, University of, (Switzerland).

Georgetown University.

Gideon, A.

Green, S. A.

Hamilton College. Hampden-Sidney College.

Hampton Normal & Agricultural

Institute.

Hanover College, Indiana.

Harris, A. L. Harris, Charles.

Hartford Theological Seminary.

Harvard University.

Harvey, E. H.

Haverford College.

Hay, John.

Haydn, Rev. H. C.

Herrick, F. A. Hobart College.

Hope College. Hoppin, J. M.

House, Rev. John Henry.

Idaho, University of.

Indiana Geological Survey.

Indiana University. Iowa College.

Iowa State University.

John B. Stetson University. John Crerar Library, Chicago.

Johns Hopkins University.

Jones, Rev. J. P.

Kansas, University of.

Kansas City Medical College.

King, Rev. Henry C.

King, William F. Knox College.

Ladd, George T.

Lafayette College.

Lake Mohonk Arbitration Con-New York State. New York State Charities Aid ference. Lakeside Hospital, Cleveland. Association. Lane Theological Seminary. New York University. Leffingwell, Albert. New York, University Club. Leland Stanford Junior University. Newcomb, H. T. Lewis Institute, Chicago. Niagara University. Lincoln University, Lincoln, Ill. Northwestern University, Evans-Loubat, Duc de. ton, Ill. Northwestern University, Water-McBride, J. H. McCormick Theological Seminary. town, Wis. McGiffert, Rev. A. C. Norton, D. Z. McGowan, Frank S. Oahu College, Honolulu. Marietta College. Oberlin College Library. Ogilvie, J. S. Massachusetts, State of. Massachusetts Institute of Tech-Ohio Board of State Charities. Ohio Medical University. nology. Massachusetts Single Tax League. Ohio State University. Mather, Samuel. Ohio Weslevan University. Mather, Mrs. S. L. Oregon, University of. Pack, Charles L. Mather, William G. Mercersburg College. Park College. Parker, Henry W. Merck, E. Miami University. Parmelee, R. M. Pennsylvania Central State Normal Minnesota, University of. Missouri, University of State of. School. Pennsylvania College for Women. Morley, E. W. Mt. Holyoke College. Pennsylvania Railroad Co. Mt. St. Mary's College, Md. Pennsylvania, University of. Mt. Union College. Perry, C. R. National Conference of Charities Philippine Information Society. : & Correction. Phillips Academy, Andover, Mass. Nebraska, University of. Pike College. England Anti-vivisection Platner, S. B. New Potwin, L. S. Society. New Hampshire Historical Society. Pratt Institute. New Jersey Geological Survey. Princeton University. New Jersey State Library. Providence Public Library. New Jersey State University. Public Libraries. New Mexico, State of. Raymond, S. A.

Reserve Board, Adelbert College.

New York Homeopathic Medical Rees, W. D.

College & Hospital.

Ripon College. Robbins, R. C. Roberts, Isaac.

Rochester, University of.

Rochester Theological Seminary.

Rostock, Landes-Universität.

Runk, E. J.

St. Benedict's College, Atchison, Kan Waite, Mrs. Frances P. (from the

St. Ignatius College, Chicago, Ill. St. John's College, Brooklyn.

St. John's University, Collegeville, Warner & Swasey. Minn.

St. Louis University.

St Olaf College.

St. Xavier College, Cincinnati.

Seymour, T. D.

Shufeldt, R. W.

Simkins, J. D.

Simpson College.

Smith, Col. J. A.

Smith, J. S.

South Carolina College.

South Dakota, University of.

Stechert, G. E.

Strong, Josiah.

Taylor, Charles.

Texas, University of.

Thwing, Pres. C. F.

Toronto, University of.

Torrey, Miss Bertha L.

Tower, O. F.

Tufts College.

Tulane University of Louisiana.

Udden, J. A.

Union Theological Seminary.

U. S. Civil Service Commission.

U. S. Government.

U. S. Naval Observatory.

University School, Cleveland.

Upson-Walton Co., Cleveland.

Urban, Dr. I.

Ursinus College.

Utah, Agricultural College of.

Van Marken, J. C.

Vassar College.

Vermont, University of.

Vilas, M. G.

Vitz, C. P. P.

Wade, J. H.

library of T. P. Handy).

Walker, Admiral John G.

Warren, F. M.

Washington, University of.

Weinberg, Boris.

Welch, H. C.

Wesleyan University, Middletown.

Ct.

Western Maryland College.

Western Reserve University.

Western University of Pennsylvania.

Wheeling, Va., Board of Education.

White, John G.

Wilberforce University.

William Jewell College.

Williams College.

Williamson, C. C.

Winship, Miss E. M.

Wisconsin State Historical Asso-

ciation.

Wisconsin, University of.

Woman's Hospital, N. Y.

Woman's Medical College of Penn-

sylvania.

Wood, H. C.

Wooster, University of.

Worcester Academy.

World's Student Christian Federa-

tion.

Yale University.

Young, C. A.

#### RELATIONS WITH OTHER LIBRARIES.

During the year just passed we have borrowed books from the libraries of Harvard, Yale and Cornell Universities, and the Library of Congress, and loaned books to the libraries of Ohio State University, Cornell University, the University of Chicago, and Iowa College. This extension of the resources of each library by the system of interlibrary loans is one of the most pleasing and helpful features of modern library development. No earnest scholar, however far removed from the great centers of learning, need fail in his work through the lack of an opportunity to consult this or that rare or monumental work. Our relations with the Public Library have been most pleasant this year, as they have in the past, and more students and professors have availed themselves of our special privileges than in any previous year.

### ADMINISTRATION.

There are a few changes in administration worthy of mention. It seemed best not to keep the library open in the evening, as was done last year, and our hours this year have been from 8 a. m. to 5:30 p. m. This change has resulted in a considerable saving of heat, light and service of supervision. The monitor service in the reference room was discontinued on the first of October, 1901, a few days after the opening of the term, and the experiment was tried of having the assistant librarian take charge of this room. We had some doubts as to the practicability of this plan, since the assistant librarian has charge of the cataloguing and classification, the catalogue itself must remain on the lower floor, and many of the reference works needed in the accession cataloguing are needed also in order work, which must still be done in the librarian's office. However, by removing the shelf-list to the reference room, and by a careful division of the reference books used in common in the accession, order and catalogue work, we have solved the problem in a fairly satisfactory way. The disadvantages of the new arrangement are that during the morning hours it leaves the librarian in sole charge of the lower floor, including the seminaries, the stackrooms and the periodical room, and that all the routine work of charging and discharging books, and the like, must be done by him, thereby using up time and force which might be better spent in doing other work. The advantages are to be seen in the increased good order of the reference room, the proper supervision of the reserve books, and the presence of someone competent to give intelligent aid in reference work.

Under the student-monitor system the proper supervision of the reserve books was a difficult problem. We had few hard-and-fast rules, as it seemed unwise to make rules which could not be enforced. At the beginning of the current year, however, regulations were posted in the reference room touching the following points: Books withdrawn from the reserve or reference shelves over night must be returned by 8:15 the following morning, and without special permission no book can be withdrawn before 5:15 p. m.; all books taken from the reserve shelves for use in the room must be charged on slips furnished at the attendant's desk, and the slip removed or destroyed when the book is returned to its place; and no book is to be removed from the room to any part of the building without permission of the attendant. An enforcement of these rules results in the "greatest good to the greatest number." As the assistant librarian is compelled to spend at least one hour each noon in the office, and as at other times the books must be left without supervision, it is impossible to secure the best results, but an advance has been made over the system of any previous year.

#### CATALOGUING.

On September 2, 1901, Miss Esther Crawford, formerly head cataloguer of the Dayton Public Library, took up her work as assistant librarian, in charge of the cataloguing and shelf-list work. Of the quality of Miss Crawford's work, and the conscientiousness which marks every detail, suffice it to say that her work with us fully sustains her previous reputation. All new books have been thoroughly catalogued, by subjects and analytically, and a beginning has been made of the revision of the old catalogue. For the present it has been found necessary to file all new cards in a separate alphabetical arrangement. The use of the Cutter-Sanborn book-numbers on the recent accessions necessitates the renumbering of the old classes. Since the new books have been coming in much faster than we can catalogue them properly, a rough author entry has been made for each new book on a colored catalogue slip, and the slip filed in the catalogue until such time as the regular cards can be made. This temporary entry is made by the accession clerk, the making of it takes but a moment, and it serves a very useful purpose.

In spite of the fact that a large part of Miss Crawford's time was taken up with such work as the supervision of the reference room, the care of the reserve books, and work at the loan desk during the noon hour, much was accomplished in the line of her special work. It is to be regretted that the smallness of our force will not allow her to give her undivided attention to the cataloguing.

It is a matter of great regret to all librarians that the mere mechanical process of writing catalogue cards consumes so much time, and it is especially a source of aggravation when we consider how much of the work consists of mere repetition. There are two ways of overcoming this difficulty in some degree, one is the use of a duplicating process, the other the purchase of printed cards covering as many of the new books as possible. During the past year the Library of Congress has been offering to libraries at a merely nominal price copies of the cards printed for its own use. At present these cards cover in the main the books received at the U. S. copyright office. As to the possibility of using these cards in this library I wish to quote a few lines from the report of the assistant librarian:

"To ascertain whether the printed cards from the Library of Congress could be used here to advantage, statistics were compiled regarding the nature of additions to this library from November 19, 1900, to April 24, 1902. This period represents in its additions an approximate average of what might be expected for any similar period in the future. Of the total additions by purchase and gift—3,500 volumes—the books in foreign languages comprised 45 3-5 per cent., and those in the English language for which no printed cards were obtainable covered 27 32-35 per cent. more. Of the remainder, 26 17-35 per cent., over half were continuations for which printed cards were of no advantage. In view of these facts the use of printed cards from the Library of Congress cannot be recommended as yet for this particular library."

#### EQUIPMENT.

An acceptable addition to our equipment is a nine-drawer catalogue case, which was obtained from the library of the College for Women in exchange for a smaller case. Our card-cabinet equipment consists now of two 9-drawer cases and one 30-tray case, containing the catalogue, and one 9-drawer case for the shelf-list. The three catalogue cases, which vary in style and finish, should be replaced by a single large cabinet, and the shelf-list case, which is antiquated in construction and entirely too small, replaced by a more modern case of double or treble capacity. Other needs, which

have been brought to the notice of the proper authorities by the Library Committee, are new periodical cases—our present cases having a capacity of less than one-half the number of serials received at the library—and additional shelving in the reference room. These needs are pressing, and seriously hamper the work of administration.

For some time past the need of more shelf-labels for the book-cases has been felt, and since the removal of the library to the new building this need has been accentuated by the fact that the old shelf-label holders, which were made to fit thick wooden shelves, could not be adjusted properly to the metal shelves in the new stackrooms. The shelflabel holders in common use are protected by a patent, and the best quotation we could get on even a large order was at the rate of seven cents apiece. Since all supplies of this kind are paid out of our book funds, we were unwilling to buy them at this rate, and were finally able to devise a much simpler article, which can be made in small lots at the rate of 21/2 cents apiece. These have so far served our purpose very well, and 1,000 of them have been added to the shelves. The old-style labels will now serve for the wooden shelves in the reference room and the seminar rooms. For valuable suggestions and help in connection with the preparation of these shelf-labels, as well as for kindly aid and interest in other work connected with the library, we wish to express here our thanks to Miss Bertha L. Torrey, registrar of the College for Women.

#### DEPARTMENT LIBRARIES.

The problem of the department libraries was brought to the notice of the Library Committee this year by the changes in the interior of the main recitation hall, and the arrangements made for shelving collections of books in the rooms of several departments. The committee, made up as it is of members of the faculty representing the sciences, literature and philosophy, was able to discuss the matter from different standpoints, and very soon agreed upon a basis for present and future action, which was expressed in the following motion:

Voted: a) That the lists of books and periodicals now in the departmental libraries shall be examined by the library committee, for the purpose of returning to the main library such books as more properly belong in the general collection: b) That no books or periodicals shall hereafter be placed in any departmental library without the authority of the library committee.

The general opinion of the committee is that the more technical works relating to the natural sciences might well be shelved in the scientific laboratories, where they are most needed and most used, provided they be accessible to the general reader who might be referred from the main library to the laboratories; that the general scientific periodicals. works relating to more than one of the sciences, and books and periodicals belonging to the classes history, literature, sociology, economics, education, religion and the fine arts, being of interest to the general reader, should remain in the central library. Provision has been made in one of the rooms of the main recitation hall for the shelving of a classical library of several thousand volumes, and during the Easter recess, 1902, most of the books classified with the collections of Latin and Greek philology and literature were removed to that room. Works on the history and criticism of classical literature, translations of classical authors, and the like, were retained in the main library. Changes in this department collection may be made before a final division of the books is fixed upon. The present condition, however, is a great improvement over the old arrangement, whereby the classical books were shelved in three places, the Greek room, the Latin room, and the main library.

#### FACULTY PRIVILEGES.

It has been the custom for years past in this library, as in most libraries of similar institutions, to grant to members of the faculty unlimited privileges as to the number of books withdrawn from the library for personal use, and as to the time such books might be retained, the librarian reserving the right to notify the holder of any volume in great demand. As might be expected under such conditions, books were withdrawn, kept for a long period of time, and finally lost to sight and memory. In an effort to correct this practice, the library committee in 1898 requested the librarian to hand to each member of the faculty once a year a list of the books charged to him. This was done, but the relief afforded thereby was slight, and did not result in the return of many books. At the committee meeting held Dec. 13, 1901, the matter was again taken up, and it was ruled that all books charged to members of the faculty should be returned to the library between May 1st and June 1st of each year. Any or all of the books so returned may be immediately withdrawn again, but the actual presence of the books at the library is required by the rule. It is hoped that this regulation may afford some measure of relief.

#### THE MEMORIAL TABLETS.

On June 11, 1901, as a part of the exercises of the 75th commencement, took place the unveiling of the memorial tablets to Presidents Storrs, Hitchcock and Cutler, which had been set in place in the Hatch library a few days before. The program consisted of the reading by Prof. O. F. Emerson of extracts from the inaugural address of President Storrs, from the funeral sermon by Prof. E. A. Parks, and Whittier's poem "To C. B. S.;" an address on President Hitchcock by William C. Parsons, '63, of Akron, Ohio; and on President Cutler by Rev. Joseph W. Fobes, '80, of Peace Dale, R. I.

As a matter of record it may be well to reproduce here the description of the tablets as given on the printed program. It reads as follows:

"The Memorial Tablets to President Charles Backus Storrs, President Henry Lawrence Hitchcock, and President Carroll Cutler, which are to-day formally presented to the College, commemorate the services of the first, third and fourth presidents of Western Reserve College and Adelbert College of Western Reserve University. A tablet to the memory of President George Edmond Pierce, the second man to fill the presidency, was unveiled in this place several years ago.

"Each of these tablets is presented, as was also the one to President Pierce, by those who, either as friends or students, hold special relations to the men whose memory the monuments perpetuate.

"The words on these tablets are as follows:

1830. CHARLES BACKUS STORRS, 1833.
FIRST PRESIDENT OF THIS COLLEGE.

1855. HENRY LAWRENCE HITCHCOCK, 1871.
THIRD PRESIDENT.

1871. CARROLL CUTLER, 1886. FOURTH OF THE PRESIDENTS.

"But the special interest in the memorials lies in the fact that they represent the development of the College from its location in the wilderness, through the village of Hudson and into Cleveland, the metropolis. The larger portion of the first tablet is given to an unbroken forest in which can not be seen the faintest trace of the College; the second tablet shows the sun rising over a village at the edge of the forest, the roof and steeple of the old College Chapel being discernible; the last tablet reveals the roofs of a pros-

perous city, with the lake in the distance, and in the foreground the outlines of Adelbert Hall and the main building of Adelbert College."

On November 29th and 30th, 1901, there was held in the University buildings the Conference of Collegiate and Secondary Instructors. Three of the sessions of this body were held in the reference room of the Hatch Library.

#### COURSE IN REFERENCE WORK.

In the spring term the librarian offered a one-hour elective course in the study of reference books, which was taken by two students from Adelbert College and ten from the College for Women. As the course was an extra and required considerable outside work, the number of those taking it would seem to indicate that it fills a need, and that a regular three-hour course might be undertaken with profit to the student. The experience of this year proves that one-hour a week for a single term is inadequate.

### NEEDS OF THE DEPARTMENTS.

Though most of the departments are practically without funds now, or will be as soon as orders outstanding are filled, the most pressing need is for money for the departments of History, Latin, Biology and Romance Languages. These departments are without money for even the cheapest current books, and should have relief very soon. Orders have been placed for considerable additions to our very meager Spanish collection. The fund at the disposal of the Romance Language department, though small, has been most carefully invested. Credit is due the head of this department for the time and trouble he has taken to make the department funds go as far as possible. In the case of the more costly books bids were sought from several sources, and orders placed only when it seemed that no better prices could be secured. Prof. Bourland's knowledge of the Spanish book-market has been of great service in this matter. The department is now without funds, and its wants are many. There is special need of money for the purchase of one or two important periodicals, of works in French, Italian and Spanish philology, and the more recent works in French literature.

Respectfully submitted,

E. C. WILLIAMS, Librarian.



# WESTERN RESERVE UNIVERSITY BULLETINS.

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## TABLE OF CONTENTS.

Report of the President	3
Report of the Dean of Adelbert College	37
Report of the Secretary of the Faculty of Adelbert College	41
Report of the Registrar of the College for Women	42
Report of the Dean of the Graduate School	46
Report of the Dean of the Medical College	47
Report of the Dean of the Franklin T. Backus Law School	51
Report of the Dean of the College of Dentistry	53
Report of the Secretary of the College of Dentistry	<b>5</b> 5
Report of the Librarian of Adelbert College	56
Report of Instructor in Physical Training, College for Women	64

### ANNUAL REPORT.

### To the Board of Trustees of Adelbert College of Western Reserbe University and of Western Reserbe University:

I have the honor of submitting a report for the academic year of 1902-03.

A member of these Boards, Samuel Eladsit Williamson, died the 21st of February. Judge Williamson had for more than forty years, with brief intervals of absence, been constantly associated with this College or University. He was a member of the class entering in 1860 and took the degree of Bachelor of Arts four years afterward. The class of 1864 is a class conspicuous among all the classes as having members who have in life's career given an excellent account of themselves. He became a member of the Board of Trustees in 1881. He became Chairman of the Executive Committee of the University in 1800. To the important duties of a Trustee he brought a mind large by nature, judicial, trained through study, and enriched by scholarship. His regard for the work of the institution of which he was a graduate, as well as an officer, was great and was constantly shown. This regard was not based upon an emotional love for Alma Mater, but was essentially a good will for her present and future usefulness and eminence. To the many questions regarding its administration, its enlargement, and its general policy and development he contributed a just and conservative judgment. His career as a great lawyer reflected honor upon the College and University. The service of such a member of the Board should receive some memorial of special significance which shall in direct and conspicuous ways continue the labor of love which he personally performed.

At the time of the preparation of this report announcement is made of the death of another member of these Boards, Mr. Edward P. Williams. Mr. Williams, like Judge Williamson, was a member of the class of 1864. He was chosen a Trustee of the College in 1800, and of the University in 1800. As Judge Williamson represented the advantage of a liberal education directed toward the practice of the law, Mr. Williams represented the advantage of a liberal education directed toward the work of the manufacturer and merchant. To this work he brought a judgment wise and a vision large. But Mr. Williams was far other than a manufacturer and a merchant. He was a great citizen. He was also a great friend. For all that constitutes the city and the state, and the worthiest elements of the general community, he had at once much regard and efficiency. A wise counsellor and a constant benefactor the members of the Boards lose in his death.

The vacancies created upon the Boards by the death of Judge Williamson and of Mr. Williams make opportune the asking of the question, What should be the character of the men whom the Boards may seek as members, in the near future or remote future? The answer in general terms it is not difficult to make. A university is a public institution ordained to promote the highest interests of man. Therefore those whom the Boards may desire to select as members should be those who in intellectual vision perceive the nature of these highest interests, and who are also able to appreciate the relation of the university as a means and a cause for the betterment of the most serious human concerns. 'Candidates. moreover, for membership should be those who are not only able to understand conditions, but who also possess the impulse and the power for doing the duties which the relations between the university and the people impose. Furthermore it is apparent that the members should not only possess great power themselves for fulfilling the most serious duties, but

also should be in such close relationship with the moving forces of humanity that these forces may be summoned into the service of the university. In an advancing civilization the university itself, through the forces of its Board of Trust, is to progress. Candidates for the Board need not be scholars; but they should be able to appreciate scholarship. They need not be men of large financial power themselves, but they should be able to summon such power from those who wish to use this power for the benefit of man. It is only through the appreciation of such conditions that in electing new members to the Board of Trust the loss suffered through the death of Judge Williamson and of Mr. Williams. and of other useful members, can prevent the serviceableness of the Board from becoming impaired. Indeed each election should represent an addition to the positive forces of the Board for serving humanity.

The number of students in attendance in the various departments of the University in this year, as well as in the previous nine years is as follows:

	Adelbert College.	College for Women,	Graduate School.	Medical School.	Law School.	Dental School.	Total.
1893-94	124	IOI	10	97	32	31	395
1894-95	132	108	16	105	38	53	452
1895-96	142	128	13	135	41	53	512
1896-97	162	128	27	127	68	86	598
1897-98	186	146	25	127	88	91	663
1898-99	182	183	25	109	106	96	701
1899-00	193	171	17	144	IOI	91	717
1900-01	198	210	18	131	102	102	761
1901-02	206	222	16	126	100	113	783
1902-03	212	244	25	95	95	114	785

This report shows that the number in attendance in the current year in comparison with previous years is as follows. In Adelbert College, the College for Women, in the Graduate School and in the Dental School there has been a slight gain; in the Law School and in the Medical School a

slight decline. The reason of the increase in the undergraduate colleges lies in the permanent increasing prosperity of the country and also in the enlarging appreciation of the opportunities which these colleges offer. The reason of the falling off in the Medical School is found in the increased requirement for admission. The decrease in the attendance in the Law School arises in least, from reports regarding the prevalence of smallpox in Cleveland last September and October. But notwithstanding these facts the number in the whole university is in excess of the number in the preceding year. It may now be said that courses for teachers, carried on by two members of the Faculty of the College for Women have enrolled one hundred and seventy-two, and that in the Summer School of last summer were enrolled one hundred and seventy. This enrollment, together with the enrollment found in the other departments, constitute a total of eleven hundred and twentyseven.

Every university is established either to promote pure scholarship, to improve the individual character of the students, or to give professional equipment. These three purposes prevail in the administration of Western Reserve. How far forth the second of these purposes, to improve the individual character, is attained, through the work of the undergraduate colleges is a question as difficult to answer as it is important. In order to get what light might be gained upon this serious question, at the close of the last academic year I asked eighty-three men and women, who were candidates for their first degree, the question of what advantage the four years in the college had been to them. To these questions many replies were received—some definite and some general, some brief and some full.

The replies which my correspondents are so good as to make to my inquiries may be classified under some half

dozen heads; but four of the classes are specially important, and, of these four, two become of peculiar significance. These two relate to the advantage which the college offers in giving what may be called a broad view of life and of things, and of giving greater self-confidence. Of these two goods about two-thirds of my correspondents affirm that the broad view represents the more significant advantage.

This enlarged interpretation of life the new graduates have different methods of expressing; the point of view differs; but the general meaning is the same. One man says: "College has made possible and almost instinctive a perception of a large part of the totality of things and affairs, together with their relationships." He also adds, in further interpretation, which includes possibly a moral advantage as well as an intellectual, "I find myself now disposed more than ever before to weigh and estimate men and motives liberally and considerately." Another man says that one of the two chief benefits which the college has given is, "A great increase of appreciation. By this I mean a widening of my interests that enables me to find something interesting or entertaining in almost any subject or thing, and especially an increased appreciation of literature and art and nature and all that appeals to the emotional or aesthetic part of man." A woman says: "The greatest advantage which my college has given me is, I think, an awakened and everwidening interest in people and things. At my entrance my studies claimed all my attention. Leaving, I find that people of all sorts interest me. I like to study them and trace the why and wherefore of their deeds. Everything, too, has a broader meaning for me. I am interested in music, the drama, literature in general, the current history and other things numberless-perhaps almost too broad an interest. I hope, too," she adds, "that my love for study has changed from a getting of lessons to a getting of wisdom." Other students express the same general idea in such compact

forms as: "My college course has given me a much broader conception of life. Life means more to me than ever before;" "a new world of ideas and ideals has been opened to me through contact with instructors, college friends, books;" "the college has had its influence in making me feel more at home with the world;" "it seems to me that one of the greatest advantages is the tendency to observe and to understand—to see much in little;" "the college has opened up and given a glimpse into a wide variety of almost infinite fields;" "it has broadened my ideas and ideals of life."

The enlarged sense of relationships becomes the more significant in respect to certain evident contrasts. To the question, what advantage does he expect to derive from the college, the Freshman usually answers, "a trained mind." At the close of the Senior year the same man answers, to the same essential question, "a larger vision." The answers are the same, but with a world of difference. The point of view has changed from one very subjective and personal to one outside of himself. Because the mind is trained the student does see more; but he has come to think first of what is seen, not of himself who sees.

The large understanding of phenomena represents, too, an absence of the valuation of specific knowledge. Not a few students come to college with the thought that they are to learn, to learn some one thing, to learn some few definite things. But they soon learn that learning as a result in knowledge is of small value, that learning as a process is of great value, and that learning as a product in intellectual and ethical character is of greatest value. The same general contrast obtains, too, between the graduates of the professional school, be that school law, medicine or engineering, and the graduate of the college of liberal learning. The lawyer, the doctor, the engineer, on graduation, is not impressed with the broad view of life; he is impressed with the narrow view: "What is the law in this case;" "what

is the meaning of this symptom;" "what weight will these beams bear?" Such are the narrow questions which the graduate of the professional school must at once ask and answer. Clearness and narrowness are the characteristics of the professional mind.

This broad result, moreover, it is pleasant to believe, represents the best influences coming from Europe which touch the American college. The German university has given to the American not so much an enlarged sympathy with life as an enlarged sympathy with knowledge, knowledge both general and specific. It aims to make scholars. The English university has given to the American not so much an enlarged sympathy with knowledge as an enlarged and quickened sympathy with life. It aims to make gentlemen. The American college and university gathers up, conserves and projects these two great purposes; it creates an appreciation of scholarship, knowledge, learning, covering all phenomena; it invites a sympathy with life, all lifenothing is foreign to it which belongs to humanity. Over such a result the friends of the higher education in the United States may humbly exult.

It may be worth while to say, too, that these graduates for three of the four years of their course had been choosing their studies under a pure system of electives. Some had, undoubtedly, chosen foolishly, but more, let us believe, had chosen wisely. Yet their choices, whether made on a broad basis or with specific views, had resulted in giving largeness of vision and of understanding. They had been saved from narrowness.

It may be mentioned in passing that no essential difference is to be distinguished between the answers of the men and the women. Each finds with equal degrees of advantage the worth of a nobler interpretation of men and movements as the chief work of the college.

Several of the college men and women, almost a third. refer to increased self-confidence as a result of their course. In this result is found a certain distinct charm. For the ordinary boy or girl coming up to college is not supposed to be lacking in self-confidence. But I suppose the self-confidence of the Freshman is the self-confidence of ignorance. which vanishes with the vanishing of ignorance; but the selfconfidence of the Senior is the self-confidence of the consciousness of power, a confidence which has grown with the growth of the consciousness of power. One college woman, who writes anonymously—as I asked each of my correspondents to feel free to do-says: "The greatest good the college has given me is trust in the strength of mine own self. When I entered college I was apt to say, 'I cannot.' Now I say, 'I must,' and better, 'I can.'" A college man writes: "I no longer feel afraid to undertake a new or difficult thing merely because it is new or difficult; but I am more inclined to take up a new problem or task just as I would enter upon the work of a new study in my college course—as something which can be done and which I can do." The self-confidence of the graduate is an assurance as remote from arrogance or cockeyism as are the poles apart; it is a confidence which is not content with holding the personal forces out of which it arises in a simple equilibrium, but which is eager to use them as a dynamic.

The college graduate usually comes out with a pretty clear conception of the value of hard work as a means of making one's way. "The necessity of hard and continuous work in order to obtain anything like satisfactory results;" "how great is the necessity to work constantly and faithfully" are phrases which these new graduates use. And be it said that most graduates are willing to work long and hard at menial tasks in case such labor be their duty. The ordinary opinion, I know, is to the contrary. A leading banker writes me saying: "A young man with a college education

is much more averse to putting himself down to the drudgery necessary to one entering business as a novice." Of course such a matter is a matter of observation and of testimony. But I know of many graduates who, leaving college, are eager to do any work, however humble, which aids them in making themselves masters; and I believe that no one doubts that the number of such college men constantly and rapidly increases.

Both as a cause and as a result of the willingness to work hard, and to work hard in the humbler relations of any service, is found one effect of the college course. This effect is the possession of good intellectual habits. The value of good moral habits the American people recognize; of the value of good intellectual habits they think little and say less. But the college man knows their preciousness. One of my correspondents writes: "College training has enabled me to appreciate more fully and to practice more diligently prevision and system." Another says: "College training teaches one to go to work at any task with system and method, in the consciousness that one has acquired the ability to think through quickly and logically the questions which come up." A woman says: "I know I can concentrate my attention better and think more clearly than at the beginning of my college course." And still another, also a woman, affirms: "Above all perhaps the college has taught me that it is the person who thinks who wins."

In a large number of interpretations of the worth of a college to oneself, of course the personal equation emerges. Unique results each finds for oneself. One affirms: "The college course has taught me the value of time." Another says: "The greatest good is the ability to see how little I, as a student, know, how much there is that one must be satisfied to leave unlearned." And a graduate of the College for Women writes: "The college has taught me that for a woman wisdom of the heart should take precedence of cold

facts of the head. To me personally, I think this has come to be an extreme advantage." Another graduate says: "I feel that the greatest benefit which four years' training at the Woman's College has given me is the power to influence the life of my home. I believe that the atmosphere of our home and the lives of my parents, neither of whom was granted the privilege of attending college, has broadened as I have grown and broadened."

The influence of the graduate on the home is a rather unique interpretation of college and domestic relations. By the side of this remark I wish to place a remark made by a man, after saying that "the college has broadened my ideas and ideals of life," who adds: "I would, however, wish to qualify this, for I feel that it is not an unconditioned advantage. I think it in a way separates one from those he should cherish." This remark is the most pathetic one found in all my letters from these college men and women. In it one sees this boy growing in intellectual stature and feels his satisfaction in this growth, but also one feels the sorrow of his heart as he realizes that this growth is a growth away from his father and his mother. He knows that the filial sacrifice is costly. He does not, as does the college woman, seek to lift his home as he himself rises. Perhaps he knows he cannot lift it.

Among the advantages which these graduates name is one which it is pleasant to note and which is most personal. It is the advantage belonging to the development of largest and finest character. One writes: "The college has given me an ambition to become a more womanly woman;" and another says, "The college has made me more womanly." Yet another adds: "I have learned that not only the scholastic work in college, but also the grace and culture which result from things altogether remote from class-room work, is necessary to the well-trained, well-balanced woman." With a freedom, too, which under the conditions is

to be commended, a man writes: "I realize that the college has made more of a gentleman of me than I would have been otherwise perhaps."

If what these college men and women say is the worth of their course to them be at all significant, possibly what they do not say may be even more significant. The absence of three types of allusions is to be noted: (1) There is no allusion to friendships formed in college; (2) there is no allusion to the personality of teachers; (3) there is no allusion to the influence of religion.

College friendships and acquaintances are commonly supposed to be one of the richest results of a college course. It is a long way between "In Memoriam" and modern business, but the poem sings a college friendship, and success in business, scores of bankers and merchants have said to me, is vastly promoted through the personal acquaintances formed in college. This absence is singular and to me a little hard of explanation. Possibly men and women who are just leaving college do not appreciate the value of college friendships as they will when they are become graduates of ten years' standing.

The absence of allusion to the value of commanding or formative personalities of the teaching staff is not so surprising. For I do believe that the increasing elaborateness and complexity of college life is obscuring the dominance of the great teacher. The elaborateness of undergraduate life has advantages, but on the whole the life has become too elaborate; the disadvantages are greater than the advantages. The college man and woman is to distinguish between college vocations and college avocations. The side-callings are to be heeded, but they are not to be substituted for that which we name, as if it were the voice of God which spoke, the calling. The calling of the college student is to put himself under the power of a great teacher teaching great truths.

One is made at once glad and sad at the absence of reference to the value of religion in the college. Religion has been, is, will be, and must be the mightiest force in the college as in life; for religion represents the relation of the individual to ultimate reality. But at the present time in the college, as, though in a less degree, in the community, the influence of religion is passing from the force of special acts, forms and observances to the force of states, conditions. movements and atmospheres. The college man has not so much got a religion, or religion has not so much got him, as some years ago; but he is more religious. Religion has become to him more of a motive, a characteristic, a character; all life has become to him religious; and all phenomena he seeks to interpret by religious categories. Of religion he thinks less, but he lives it more; of religion he emotionally feels less, but he practices it quite as much.

As one reviews these interpretations of the worth of a college course made by men and women who are just closing it, one is impressed with the assurance that the college is becoming less collegiate, less technical, and is becoming more human. It is still making scholars, but it is making thinkers more; it is still making thinkers, but it is also making gentlemen; it is still making gentlemen, but is also and more making men. The men whom it makes are of the largest type—great without bigness, self-confident without arrogance, strong without hardness or harshness, and gracious without softness or weakness, at once sufficient and efficient.

No small share of the general public discussion of the academic year has had relation to what is known as co-education. This discussion was occasioned by the elimination of this method for the first two years of the college course in the University of Chicago. The discussion which has arisen in Chicago and other parts occasioned by this change

is of a character not unlike the discussion prevailing in Cleveland in the year 1888, when it was determined no longer to receive women into Adelbert College and to establish as soon as was fitting a separate college for them as a department of the University. The experience of fifteen years of what has come to be known as co-ordinate education must be acknowledged by every observer as advantageous. The College for Women of this University has come to enroll a larger number of students than is enrolled in the college for men, and has buildings and land of the value of \$352,400.00, and an endowment of the value of \$312,277.19. It has in these years given two hundred and thirty-seven degrees, exclusive of those forthwith to be granted.

The present vocation of these graduates is significant. The following table has been prepared by the Registrar:

Married															54
At home .												_			46
Teaching in	ı Hi	gh	S	ch	oc	ls									57
Teaching in	Gra	m	ma	ır	Sc	h	00	ls.							32
Teaching in	coll	eg	e												~2
Principals o	f pri	iva	te	SC	h	00	ls								4
Private tuto	ors .								 						
Librarians															8
Clerical wo	rk .														7
Graduate st	uder	ıts													12
Editor															I
Teacher of	mus	ic													Ī
Students of	mu	sic													2
Translator.										Ċ				i	I
Kindergarti Student of	me	dic	in	e							Ċ	Ċ	·		1
Nurse															1
Actress															
Deceased .															
														_	
Total															237

Yet, while the success of the undertaking of women's and men's education in this University by the co-ordinate method is evident, it should be freely acknowledged that it may be expedient for all methods to prevail. The elective principle in respect to methods of education should prevail as well as in respect to the content of education.

To argue that a co-educational college is the better or the best, or to argue that a separate college is the better or the best, or to argue that the co-ordinate college is the better or the best, is not wise. Such argumentation represents a form of general statement which does not apply to the practical condition of the training of boys and girls. Such argumentation is like saying blue ribbons are better than pink, or pink superior to white. Each is better in certain conditions.

It is a most happy circumstance that this principle of choice is not difficult of application. For colleges of the three chief types,—the separate, the co-educational, and the co-ordinate,—are available. In New England one finds colleges for boys alone, for girls alone, for both boys and girls, and also for both boys and girls under the co-ordinate system, although the separate type is the more common. In the Middle West the same condition obtains, although the co-educational type is the more common. In the Western West, co-education is the rule, but to it are found a few, and only a few, exceptions. In general it is just to say that there is no difficulty in applying the principle of election in the choice of the co-educational or separate type.

It is also to be said that this principle of election is constantly applied on other grounds than those embodied in sex. Reputation, rural or urban or suburban location, climate, not to speak of athletic interests, determine the choice of a college. One of the most useful and distinguished professors of Harvard College said to me that it fell to him to make the selection of a college for his two nephews; one he kept at Harvard, and one he sent to Amherst. Pick out the college for the student, pick out the student for the college, in matters touching sex as well as in matters touching scholarship and undergraduate atmospheres.

But I wish to apply the principle yet more definitely. Of what sort is the boy or the girl who should go to the co-edu-

cational, or to the separate, college? I am inclined to believe that the woman who is obliged to earn her living, and possibly the living of others, should usually go to the college to which men go. In earning her living, under ordinary conditions, she will be brought into close and constant relations with men. It is, therefore, important for her to know, and be known, by men. Through such a knowledge she will be able to secure the results she wishes to secure. Her approach to men, and their approach to her, will be the readier. She will not be afraid of them! In other words, she will be more like a man. Now this result carries along with itself an untoward, and some would say, a lamentable, result. This coeducational graduate has lost a certain delicacy, which it is far easier to feel than to see, far easier to see than to interpret. The blush and the bloom have vanished. In its place have appeared a certain strength, power of initiative, persistence, independence, which are of very great value under all conditions, and which are of the greatest value to the woman who is making her way in the world. Certainly they are of greater value as protective forces than are delicateness and exquisiteness.

The boy, too, who had better go to the co-educational college is easy to find, although be it said, I think that the co-educational element of the college usually means less to the boy than to the girl. He is the boy to whom the association with noble young women will prove to be of special significance. He is the boy distrustful of himself, and especially distrustful of himself in his social relations to women. His relations to women have usually been limited to those of his own home. He has not been able to adjust himself to women other than his mother and sisters. Such a boy receives special advantages from the co-educational college. He comes to recognize in the college girl more a human being than a feminine one. He relates himself to this girl, and so to all girls, in large, natural ways. His social

adjustments become simpler, freer from self-consciousness, and in all respects more fitting.

Yet there are other boys and girls who should go to separate colleges. To one type only of these do I refer. The type is common enough still, an inheritance in part from the boarding-school system. It represents the susceptible boy and the susceptible girl. In certain ways and in the case of certain students the co-educational college does expel silliness, but in the case of a larger number, and as a general movement this adolescent emotionalism still obtains, and is in grave peril of working evil results.

Be it further said, those evil results become more or less evil. according as the co-education allows much or little emphasis to be placed on the co. For co-education as a theoretical system may be the same in all colleges, but co-education as a method actually applied to students and used by them manifests tremendous differences in different colleges. have, as a visitor, followed the relations of men and women at certain co-educational institutions. Of the morning they breakfast together, and of the evening together they sup. Together, too, do they go to the same recitations, together do they recite, and together do they retire at the close of recitation. I also know colleges which are formally co-educational, but in which the co-educational element is limited to attending the same recitations, lectures, and religious services. The men and women pass and repass each other on the same narrow plank walks, but they pass. They on the whole seem to struggle to give no recognition of the existence of each other.

Each of these types is a form of co-education, but the two represent practically opposite methods of education. Between the two types, of course, lie all varieties of co-education. I suppose every interpreter would say that each of these extremes is bad, and that such eccentricities should be removed. But my present statement is simply that they do exist, and existing are to be interpreted and dealt with.

One of the important questions of undergraduate education, pertaining to all as well as to our colleges, relates to the length of the undergraduate course. It is apparent that much diversity is to prevail in the length of the course necessary for giving the first degree among the different colleges. It is apparent that the elective system is to be applied to this condition of time as well as to the content of studies.

This general remark regarding the length of the college course has relation to the combination of undergraduate and professional study which is now carried on in the University. This is the ninth year of the combination of the last year of the undergraduate work with the first year of the Medical School professional course. It is also the first year of a similar combination existing between the undergraduate college and the Law School. It cannot for a moment be doubted that this combined process is proving advantageous. Regarding the advantages of the co-operation between the Medical School and the undergraduate college reference is made in the Annual Report for 1805-'96. Although the combination for one year between the Law School and the undergraduate college fails to furnish adequate evidence of the advantages and disadvantages, yet the evidence, so far as it is forthcoming, is conclusive that the advantage is great. One chief purpose of the undergraduate college is the giving of intellectual discipline. This intellectual discipline consists largely in the power of thinking. Testimony of the seniors of Adelbert College who have had taken nine hours of the work of the first year of the Law School is definite and strong upon the worth of the intellectual discipline of the studies of the Law School. The method of study in the Law School is largely the method of cases. In such a method thinking is the single essential condition necessary for progress. Therefore, one chief and comprehensive result of the undergraduate training is immediately and directly

gained by the studies of the Law School. Indeed it may be said that undergraduate students who entertain no thought of becoming lawyers would find great advantage in taking certain courses in the Law School. For those wishing to enter the ministry or business such courses would prove of special worth.

One of the most important of the works of the Faculty of Adelbert College in the year has been the adoption of a combined course with the Case School of Applied Science. The history of the undertaking is possibly significant. Under date of January 30th Acting President Howe of the Case School wrote to the President of Adelbert College as follows:

"Quite recently several members of the senior class in Adelbert College have called upon me to see about taking an engineering course next year, and also to inquire whether it would be possible for them to take some subjects in Case during the remainder of the present year. It is now necessary for a graduate of Adelbert College to spend at least two years in Case School of Applied Science in the Engineering Course. Would the Faculty of Adelbert College be willing to allow Adelbert students to take the whole of their senior work in Case instead of in Adelbert?

"I think such an arrangement would be of advantage to Adelbert, Case and to those students who desire a technical course. It would seem to me an advantage to Adelbert College and Western Reserve University because so far as students are concerned the University would have a technical department. This would be an inducement to students to attend Adelbert College, as it would enable them to finish their college course and their technical course in five years' time. It would be of advantage to Case because it would bring to us more college men, an end which we are

very desirous of obtaining. In the past we have had quite a number of Adelbert graduates, and we want more. Such an arrangement would be of advantage to the student because he would receive three years of college training, which is broader than technical training, and would be a graduate of a college as well as of a technical school.

"Students wishing to take advantage of this proposed arrangement would be obliged to take in their college course the Mathematics, Physics, Languages and Chemistry which Case gives in the freshman and sophomore years. Having had these subjects in Adelbert, a student ought to finish our work in two years' time by doing some extra work. If the students can take our six weeks' summer school before beginning their work here there will be no difficulty whatever in finishing in two years' time, and I do not think there will be any difficulty anyway, as a number of college men have done this in the past.

"I have not brought this matter before our Faculty or our Board of Trustees, as I do not see that it is necessary at present. There are some details which could readily be adjusted by private conference if the general plan meets with your approval. If you think favorably of this, I trust you will bring it before the proper authorities of the college and the University. I am,

"Very truly yours,

"CHAS. S. Howe,
"Acting President."

As a result of this letter the Faculty appointed a committee consisting of Professor Whitman, chairman, Professor Morley and Professor Smith, to consider the matter therein presented. The committee reported, recommending that a combined course of study be established in co-operation with the Case School of Applied Science. In point of time the committee recommended that the course should

consist of five years, of which the first three should be spent in Adelbert College and the last two in Case School. In point of content of the course the committee recommended that the following studies be taken in the College:

FRESHMAN YEAR. As in Adelbert catalogue.

Sophomore Year	Classical	Modern Language	Latin- Scientific
English, 2	2	2	2
Chemistry, I a and b	6	6	
French, I and 2	6		
German, 3	6		•
Physics, I and 2	6	6	
German, I and 2			6
Mech. Drawing	3	3	3
Geology, I and 3	•	<b>3</b> 6	3 6
Chemistry, 3			3
Mathematics, 7	3	3	3
Astronomy (Des.)	-	3 3 3	3
English, 4		3	3
English, 7			3
	32	32	3 3 3 3 3 32
JUNIOR YEAR	Ü	· ·	· ·
Mathematics, 8 and 11	6	6	6
German, 3			6
Geology, I and 3	6		
Astronomy (Des.)	3		
Economics, I	3	3	3
English, 4	3 3		_
English, 7		3	
French, I and 2			6
History or Philosophy	9	9	9
Other Electives	О	9 <u>9</u>	0
	30	30	30

It is recommended by the Case School Faculty that in addition to the above the student shall take—

Ci			
Chemistry, 3	3	3	
Physics, 3, 4 and 5	12	12	12

These are not required, but are believed to be for the advantage of the student.

The course outlined above includes all the required work in Adelbert College, and the requirements in the elective courses marked A, B, and C, in the Adelbert catalogue. It meets also the requirements for the first two years of the Case School courses (either directly, or by work received as equivalent for courses in the junior or senior years at the Case School, leaving time to make up some freshman or sophomore work), except about 200 hours of actual working time in such subjects as surveying and mechanical drawing, in the Civil Engineering course, and about 272 hours in the other courses. Reckoning these as purely laboratory courses at nine hours weekly, the deficiency amounts to one laboratory course for about 23 weeks in the civil engineering course, and about 30 weeks in the other courses. This work must be made up, either by extra work at Adelbert College, if facilities can be provided, or by taking advantage of the summer sessions at the Case School.

(Astronomy is not required or accepted at the Case School, except in the Civil Engineering course.)

After discussion, the Faculty without any dissenting vote adopted the report. It may be added that the Committee on Instruction of the Board of Trustees voted to approve the report and referred it to the full Board, with the recommendation of its adoption.

The significance of this combined course is great. At the conclusion of the whole course (possibly at the close of the fourth year) a literary degree is given by Adelbert College of Western Reserve University and a scientific degree by the Case School of Applied Science. The chief reason of this combination is the fact that many men feel they can not afford to take four years of the course in a liberal college and also two or three years of a course of technical training. Both time and money are lacking. Through the combination proposed the expense both in time and money is greatly lessened. It is also generally agreed that the man who re-

ceives a technical training alone is in peril of sacrificing both breadth of view and general cultivation to technical efficiency. It has also been charged against the college of liberal learning that its graduates are not socially effective. Through this co-operation it is believed that there may be graduated men who have efficiency without narrowness and culture without superficiality.

This combined course also represents the practical addition to the teaching force of the University of a well-equipped technical school.

The most impressive single event of the year has proved to be the gift of \$100,000.00 from Mr. Andrew Carnegie for the founding of a Library School. Under date of February 10th, immediately after a conversation had with Mr. Carnegie, he wrote as follows: "Referring to our conversation in which you said that five thousand dollars a year would be sufficient to enable you to found a school for librarians at Western Reserve University, I have instructed my cashier to send you \$100,000 worth of 5 per cent bonds. it being understood that the income is to be devoted to the purpose mentioned above, viz., the teaching of librarians. have followed your advice in this matter and the responsibility now lies with you. Let us see what Western Reserve can do." This gift of Mr. Carnegie represents the means for carrying out the vote taken by the Board at its meeting held June 11th, 1901. The responsibility to which Mr. Carnegie refers was accepted by the Board at a meeting held May 11th, when it was formally voted to establish a School for the Training of Librarians. This vote was taken upon the basis of a report made by the President regarding the propriety of the founding of a Library School two years ago:

"Cleveland offers some special advantages for a library school. If established as one of the schools of the Univer-

sity, the co-operation of the University Faculty would be of great value to it. It offers to its students superior advantages for practice work, as by arrangement with the other libraries in town, which could doutbless be made, they would have an opportunity of studying the workings of the Public Library; the Case Library, a good example of its class; the College Library; the Law and Medical Libraries.

"The school would occupy an extensive field still vacant, as there is no school between Albany and Southern Illinois. There is a demand for larger facilities for library training. The Albany school has recently increased its numbers from 30 to 48, and has many more applicants for admission than it can accept. The Pratt School gave its examination in 1900 to more than 90 persons, of whom more than 50 passed, and from these a class of 20 was selected. We are not definitely informed as to the other schools, but have no doubt that the same conditions exist. The interest in library training is so great that there is little doubt that a school will be established at some place within this territory within a short time. It is exceedingly desirable that Cleveland should take the initiative in this.

"The demand for trained people for library work is now greater than the supply, and with the increase in the number of libraries which is now going on, due both to generous gifts and to increased public interest, the demand is likely to be still greater. The librarian of the Cleveland Public Library has had frequent requests from different parts of the West and South for suitable persons to fill library positions, which he has been unable to supply. The salaries paid in library positions have been low, but there has been a great improvement within the past ten years in this, and many fair salaries are now being paid. The figures published by the New York State and Pratt Schools show a steady increase each year in the salaries paid to their graduates, and that they readily find positions.

"The establishment of a library school would be a benefit to libraries by supplying for their service young men and women who had deliberately chosen this as their life work and had fitted themselves for it in supplementing the liberal education of the college by a severe course of technical training. The entrance of a large number of trained people will raise the standard of work required in our libraries, and increase their efficiency and value. It would offer particularly to the graduates of the College for Women an opportunity to fit themselves for an interesting and useful work, one which may fairly be classed with that of teaching, which is largely in the hands of women, and which is each year attracting more of those who have enjoyed the best educational advantages."

Probably no event in the history of the University has received so wide notice as this foundation. The gift of Mr. Carnegie is also regarded by those interested in library schools as of the utmost significance. One of the library "The news that Mr. Carnegie has given iournals said: \$100,000 to the Western Reserve University, Cleveland, to establish a school for the training of librarians, is the most important fact in the library world of the present year, if not in the whole list of library gifts made by Mr. Carnegie. It has been appalling to those who have been trying to raise the standard of usefulness of libraries to see the utter lack of knowledge of requirements on the part of the bodies given the responsibility of providing library service to many of the towns favored by Mr. Carnegie's generosity. If Mr. Carnegie's interest in librarians, as such, may be aroused, and his favor turned toward the efficient training of people to lead in the library movement, he will more than double the value of every dollar he puts into library buildings. No one knows better than Mr. Carnegie that buildings and equipment do not form the most important part of an institution, commercial or otherwise. Towns may rejoice in library

buildings; librarians will rise up and call him blessed in library schools." A library without a well-equipped librarian is of small advantage. A library efficiently administered by a well-equipped librarian is among the finest forces for the betterment of the race. Mr. W. H. Brett, head of the Public Library of Cleveland, with the permission of the Public Library Board, has been giving without reserve of his wisdom and experience for the establishment of the Library School.

It is the duty of the university in a great city to minister in every possible way to the happiness of its immediate constituency. The immediate constituency of a university in a great city consists in part of the teachers of the public schools. It is therefore the duty of the university to minister to these teachers in such ways as it may be able. With the co-operation therefore of the executive force of the public schools, two professors of the University have this year given courses designed for teachers. A course given by Professor W. H. Hulme on "The Historical Development of English Literature to the Beginning of the Nineteenth Century" was taken up by seventy-two teachers of the public schools of Cleveland. A course by Professor Henry E. Bourne on "Aspects of European History Important to Teachers of American History" enrolled one hundred and In giving a report of his course Professor two teachers. Bourne says: "The hour chosen for the meetings of the class-4:30 p. m.-proved to be unfortunate, for many of the teachers found themselves so tired after their school work that it was difficult to follow with profit the course. There were twenty lectures in the course. Those who were able to continue it to the end seemed to feel that the experiment was a success. It is unadvisable to offer any course just at the end of the school day. Such lectures should

come either in the evening or on Saturday morning. would be well to devise some way of gathering in the class only those who are likely to become constant attendants." Professor Hulme also says: "From the beginning all seemed to take much interest in the lectures, but they were usually handicapped by coming into the lecture very tired, after a hard day's work." The result of these courses shows (1) a demand on the part of the teachers of the public schools for an opportunity for continuing their scholastic education; (2) the difficulty which teachers experience in availing themselves of opportunities offered for meeting the demand; and (3) the desirability of discovering a method, just to all. by which the resources of the University may be made of the highest worth to public school teachers. The most direct method for the enrichment of the community lies in the enrichment of the teaching staff of the public schools. The University, therefore, should do all it can to help the teacher.

In a similar purpose of designing to prove of aid to the public school teachers the President arranged for a brief summer school in the last June. The lectures in this school were given by President G. Stanley Hall, of Clark University; Miss Sarah Louise Arnold, dean of Simmons College, Boston; Superintendent L. H. Jones, and others. The number in attendance was one hundred and seventy. operation with the University the Cuyahoga County Teachers' Institute held its session in the Adelbert College Main Building, August 25th to 20th. In the forthcoming year the County Institute will also be held in Adelbert College in the week beginning Monday, August 31st. Also, in co-operation with Mr. Charles T. Dutton, of the West High School, Cleveland, is to be held a summer school in the natural sciences in the West High School building. These various processes represent an important function of the University directly and indirectly striving for the improvement and betterment of the public schools. A Summer School of Education and of Theology will also be held June 22-26.

The lecturers are Henry Churchill King, D. D., President of Oberlin College; Professor E. D. Starbuck, Ph. D., of the Department of Education, Leland Stanford University, author of "Psychology of Religion"; Professor Herbert Austin Aikins, Ph. D., Professor of Philosophy in Western Reserve University, and Associate Professor Howell M. Haydn, Western Reserve University.

The following is a general outline of the lectures: "The SEEMING UNREALITY OF THE SPIRITUAL LIFE."

By President King (Five Lectures).

- I. The Reasons for the Seeming Unreality.
  - A. Removable Causes.
    - 1. Misconception of the nature of the spiritual life.
    - 2. Failing to fulfill the natural conditions of the spiritual life.
  - B. Causes, Recognizable but not Removable.
    - 1. The limitations and fluctuations of our natures.
    - 2. The moral reasons for the seeming unreality.
- II. The Positive Way Out.
  - A. In the Theistic Argument.
  - B. In the Personal Relation to God.
- "WHAT IS RELIGION?"

By Professor Starbuck.

- I. Why do People Worship?
- II. The Religious Motives.
- III. The Place of Feeling in Religion.
- IV. Philosophy, Theology and Religion.
  - V. Religion as Spontaneous Spiritualized Will, or Religion in its Relation to Conduct.
- "Some Interpretations of Childhood, and of Life."
  By Professor Starbuck.
  - I. The Meaning of Infancy.
- II. Some Characteristics of Childhood.
- III. The Submerged Nine-Tenths of Life.
- IV. Youth.
  - V. Old Age.

"Human Nature and How to Deal with it: From the Standpoint of the Psychologist."

By Professor Aikins.

- I. Is Man Fundamentally Rational?
- II. What goes on in the Minds of other People?
- III. The Practical Relation of Mind and Body.
- IV. "Cultivating One's Faculties," and The True Function of Education.
  - V. On Being Sane and Good and Happy.
- "THREE CONCEPTIONS OF THE CHRISTIAN LIFE."

A Study in the Epistle of James, I Peter and I John. By Professor HAYDN.

The Graduate School of the University, now in its eleventh year, represents also a very important means for the enrichment of teachers. The Graduate School in the American College is practically a normal school for the training of advanced students. The Graduate School of this University is, and will remain, small, until provided with an endowment as adequate as that possessed by other universities. But even with its present numbers it is sure to make a good offering for the benefit of the public school and other teachers. The Dean of the Graduate School, Dr. Deering, is absent on leave for the year; but in answer to my question regarding the value of the Graduate School, he has written me in detail. I beg leave to submit extracts from a personal letter:

"The Graduate School is small, of course, as we expected it would be, but it pre-empts the field in our section and is a good beginning upon which to build when Reserve grows greater than she is now. It is small, but if it never did grow larger, it would be worth while. Why? Because it has done and is doing more than any other single agency in Cleveland to bring together and to keep together the

schools of the city and our university. Why? Because so many of the teachers of those schools have at one time or another been our pupils as graduate students—and we would get more of them if we could only offer them greater opportunities in the way of courses.

"Again, the Graduate School, though small, is worth while, because it sends its students out as teachers into schools in other towns and in the country round, and every one of those teachers is a living argument, in our favor, that boys and girls should go to college in Cleveland. Wherever a university puts her graduate students as teachers, there that university's influence will take root and begin to grow.

"Again, the enterprise is worth while for its value to the students of the undergraduate colleges; the graduate students are as leaven in the undergraduate lump and their influence is good and in many ways inspiring and uplifting.

"Yet again, the Graduate School not only draws young teachers and ministers into the sphere of Reserve influence and sends them out again as radiating centers of Reserve interest, but it also is the means of keeping our own students at the university for an extra year or longer. Many an A. B., who would stop his study upon graduation because he cannot go to Harvard for instance, is thus induced to continue his study (and get the most valuable year of all) by the opportunity afforded in the Graduate School.

"After a year with us, in which they learn how to do advance work, many of our post-graduates do go to Harvard, Yale, Hopkins, Pennsylvania, Cornell and Chicago for further study; their good training gives them high standing, and they do admirable work. In this way the Graduate School, in spite of its small size, is doing a great deal to carry the good name of Reserve abroad. I am convinced that the reputation Reserve enjoys as an institution of sterling character and high standard is due in part to the good work done by our men at Harvard and elsewhere. Looked

at merely as an advertisement, I think it pays better than printer's ink.

"Perhaps I might add this consideration: that graduate work not only does students good, but also does the professors good. Stagnant Faculties are not uncommon in purely undergraduate institutions; but a few good graduate students will keep a Faculty awake and moving as hardly anything else will."

The University has for the first complete year had the advantage of the use of two new buildings, and also of a third thoroughly reconstructed. The Florence Harkness Memorial is proving to be a most noble condition for the daily worship of the students of the College for Women. In it each Sunday is held also a brief vesper service. daily gathering of students in this building cannot fail to lift up the heart and mind to the highest and holiest things. Haydn Hall, dedicated the eleventh of November, 1902, through an address by him whose name it bears, is proving itself of the greatest usefulness. About half of the space of the building is used as a dormitory, accommodating twenty-four students. The remaining part is used as a room for study for the benefit of students living in town and also as a dining room for the residents, and as parlors for the four undergraduate classes. Happy is the life of those who spend their hours and their weeks within these strong and beautiful walls. The administration of this Hall, as well as of Guilford House, is committed to a body of women known as the Advisory Council, whose service has proved to be of the utmost value. In this year, too, the reconstructed main building of Adelbert College has been in use. Through the grateful benevolence of a member of this Board this building has been made in its interior one of the most beautiful college buildings in the world. The reconstruction has taken in no small degree the character of a

memorial to Mr. Amasa Stone. The special memorial part of the building is indicated in a mantle and tablet, the tablet reading as follows:

#### AMASA STONE

# MASTER OF GREAT UNDERTAKINGS REFOUNDED

WESTERN RESERVE COLLEGE

AS ADELBERT COLLEGE OF WESTERN RESERVE UNIVERSITY THEREBY COMMEMORATING A BELOVED SON.

THIS BENEFACTION MAKING POSSIBLE
THE ESTABLISHMENT OF THE UNIVERSITY
OPENED THE WAY FOR OTHERS

TO SHARE IN THE ENDOWING OF THE LARGER FOUNDATION DEDICATED TO

THE LIBERALIZING AND UPLIFTING OF MEN.

Daily association under architectural conditions of the noblest sort cannot fail to make for the enrichment of manhood.

Among the gifts to be noted, in addition to the \$100,000 given by Mr. Carnegie for the foundation of a Library School, is a gift of \$30,000 from the donors of the Florence Harkness Memorial for the endowment of the building. This gift is unique, not only for Western Reserve, but also is unique in the benevolence of most institutions. Its value cannot be too highly estimated. With the increase of opportunities for giving and for receiving instruction the cost of administration enlarges. Such an increment in the expense side of the budget opens the peril of lessening the efficiency of the instruction given. The vote which the Board has taken in reference to providing a fund for the maintenance of the proposed chemical laboratory represents a sound method of administration. So far as possible the gift of every building should be accompanied by a gift for its maintenance. It would not be wise for the corporation to refuse the gift of a building even if not accompanied by endowment; but it would be wise for the corporation to secure money from some source for endowment.

There has also been given or promised a total sum of \$10,000 for the next five years for the purchase of books for the Library, of this sum \$2,000 being available for each of these five years. This fund, together with the income from invested funds, and also by appropriation made in the budget, should be sufficient to keep good the file of periodicals and to buy the necessary books for the next five years. It is not to be forgotten that the worth of the library for the staff of teachers meets a most important means for the enrichment of the source of instruction.

It should be added, too, that the sum of \$10,000 has been given for the endowment of the Law School, as a part payment of a pledge made to the Law School several years ago.

Notice should also be taken of the enlargement of the campus of the College for Women through the gift of a piece of land lying on Bellflower avenue and through purchase, by funds themselves given, of land lying on Euclid avenue and to the West of Guilford House. This gift and purchase serve to give a substantial enlargement to the campus, and also render less perilous the erection of buildings which might prove to be disadvantageous.

These gifts, which aggregate toward \$200,000, represent in one relation a large sum of money. In another relation they represent a small value. But whether they be regarded as of large or small worth, they enhance the power of the University for its proper ministering unto its everincreasing constituency. In a democracy, such as is the United States, a university should embody certain broad and yet special ideals. It should promote the intellectual unity of the people. It should seek to uplift and to realize the higher social ideals. It should promote social efficiency. It should aid in the formation of sound public opinion. It

should enrich the sources of literature. It should seek to make better and worthier all grades of public education. It should train candidates for and in the great professions. It should not neglect the field of research. In an industrial age and country it should seek to minister to and through every industrial and commercial interest. In a time of conflict between capital and labor it should give both leading and light upon these fundamental interests. It should, of course, comprehending all other purposes, seek to train the highest and richest personalities.

The enlarging gifts to the University serve to increase its power for securing these noblest ends. The results therefore of a larger endowment would be to increase the power of Western Reserve University for serving the people. Every department is unable to enter into certain special fields because of its lack of endowment. The lack of funds in certain departments, be it confessed, gives constant and great concern to the immediate executive officers of Deans and President. The Medical School and the Law School, to speak of no other departments, are in urgent need of funds. To the statements of the Deans of these departments, and to the statements of the Deans of the other departments, regarding the enlargement of their work and other important concerns, I commend the attention of the Board.

At the Commencement of 1902 degrees were given in the different departments as follows:

Adelbert College	42
College for Women	41
The Graduate School	4
The Medical School	36
The Law School	30
The Dental School	31
_	

At the forthcoming Commencement, 1903, the following degrees, it is estimated, will be given:

Adelbert College	38
College for Women	42
The Graduate School	5
The Medical School	33
The Law School	23
The Dental School	41
<del>-</del>	182

These graduates go forth from the various departments bearing the commendation of the University and also with increased power for the betterment of man.

Each of these colleges or schools (excepting the Graduate School) has an Alumni Association. The graduates, too, of all departments are united in general Alumni Associations in no less than eight states or towns. They represent one of the most precious interests of the University.

With great respect, I beg to remain,

Very truly yours,

CHARLES F. THWING,

President.

Cleveland, 16 June, 1903.

### REPORT OF THE DEAN OF ADELBERT COLLEGE.

The following table shows the courses as taken for the year 1902-1903.

#### FIRST HALF-YEAR.

Courses.	No.	Subject.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Total.
Bible	I	Life of Christ				65	65
"	2	Hebrew Gram. & Reading.	I		τ	1	3
Biology	2	Zoölogy	I				I
"	3	Zoölogy		3			3
"	6	Physiology	2		I		3
"	9	Animal Behavior	2	I			3
Chemistry	I	Elementary	I	4	16	9	30
"	2	Inorganic			6	15	21
"	3	Inorganic Preparations	ľ	2			3
"	4	Metals		6			6
"	6	Organic	5	2	8		15
"	7	Quantitative	4				4
"	8	Physiological	2	4			6
Economics	I	Elements	10	15	II		36
"	3	Money	5	5			10
"	5	Economic Problems	1	2			3
"	9	Historical Politics	3	3			6
English	I	Rhetoric			I	66	67
"	2	Theme Writing	I	2	39		42
"	4	Daily Themes	ı	7			8
"	5	Daily Themes	1				I
"	6	Forensics	3	2	2		7
"	IO	Chaucer and Spenser	5	5	12	••	22
"	13	Collins to Keats	4	2		I	7
"	15	American Literature	2	4			6
"	19	Shakespeare	2	I			3
"	21	Old English	3				3
French	I	Elementary		3	15	23	41
"	3	19th Century Texts	6	$\mathcal{E}^{I}$	5	3	36

#### FIRST HALF-YEAR.

Courses.	No.	Subject.	Seniors	Juniors	Sopho- mores.	Presh- men.	Total.
Geology	I	Mineralogy	4				4
"	3	Dynamical and Structural.	7	13			20
"	5	Physiography	5	3	9	I	18
German	1	Elementary			3	25	28
"	2	Masterpieces		Ţ	I	16	18
"	3	Second Year	I	3	25	4	33
**	4	Author Course	3	4	7		14
**	5	German Literature	4	I			5
"9	)-II	General	2	5	1	3	II
Greek	I	Homer				20	20
"	3	Drama		I	7		8
"	5	Tragedy	5	2			7
Gymnasium.	I	Gymnastics and Hygiene				62	62
" .	2	Gymnastics and Physiology	2	2			4
History	I	Middle Ages	4	4	31	2	41
"	6	Colonial	5	13			18
"	14	Constitutional	5	3		I	9
	15	Diplomacy	6	8	I		15
"	17	Church	I	3	I	I	6
Italian	I	Elementary	4	ī			5
Latin	1	Livy			2	62	64
"	3	Horace			9		9
"	5	Cicero's Letters	3				3
<b>Mathematics</b>	1	Plane Trigonometry		I	1	66	68
"	4	Algebra		1	20		21
	5	Analytic Geometry	2	I			3
11	8	Calculus	2	3			5
Philosophy .	I	Psychology	4	33	4		41
" .	2	Anthropology	8	19	3		30
" .	5	Ethics	8	ī			9
" .	8a	Kant	8				ś
" .	10	Advanced Psychology	5				5
Physics	I	Mechanics	I	3	13		17
<b>"</b> "	A	Lat. Sc. Freshmen		:.		19	19
"	3	Optics	1	2	1		4
	-	•					•

## WESTERN RESERVE UNIVERSITY.

# SECOND HALF-YEAR.

Courses.	No.	Subject.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Total.
Astronomy	I	Descriptive	16	6	11		33
Bible	3	New Testament Greek	2		I		3
Biology	I	Elementary		2	15		17
"	9	Animal Behavior	3	2			5
"	7	Embryology	I	4			5
"	IO	Botany	I	4	1	••	6
Chemistry	1p	Metals	I	2	3	5	11
"	2	Inorganic			7	15	22
"	5	Qualitative	1	7	2		IO
"	6	Organic	3	3	7	••	13
"	7	Quantitative	3				3
	9	Physical	2				2
Economics	2	Economic Problems	3	9	I		13
	4	Public Finance	6	14	5		25
"	10	Comparative Politics	3	9	6		18
English	I	Rhetoric		2	2	65	69
"	2	Theme Writing		2	39		41
"	4	Daily Themes	I	1		I	3
"	5	Daily Themes	2	7			9
"	7	English Prose	5	7	8	•	20
"	11	Shakespeare and Drama	2	3	3		8
"	16	English Criticism	4				4
"	20	Browning	4	1	2		7
"	22	Middle English	3				3
"	30	Elocution	I	3	5		9
French	2	Elementary		2	13	23	38
"	4	Modern Texts	3	3	I		7
Geology	2	Mineralogy	I				I
"	4	Historical	4	I 2			16
German	I	Elementary			3	17	20
"	2	Masterpieces			1	23	24
"	3	Second Year		I	25		26
"	4	Author Course	2	4	6		12
"	5	German Literature	4				4
. "9	9-11	General	T	2		3	6
Greek	2	Attic Orators				20	20
"	4	Plato	1		7		8
"	8	Archaeology	4	2	• •	• •	6

## SECOND HALF-YEAR.

Courses.	No.	Subject.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Total.
History	Α	For Lat. Sc Freshmen			1	18	19
"	2	Modern Europe	6	5	19	3	33
"	5	Church	6	13	3	I	23
"	7	Political and Constitutional	IO	25	13	I	49
"	ıob	American Politics		8	4		12
Italian	2	Dante	3	1			4
Latin	2	Plautus				59	59
**	4	Tacitus			4		4
"	8	Silver Age	4				4
<b>Mathematics</b>	2	Analytic Geometry		2		70	72
66	6{	Trigonometry and Sur-	I	4	11	I	17
66	7	Calculus		2	12		14
44	11	Differential Equations.	3	2			5
Philosophy .	3	Logic	I	11	17	••	29
" .	4	Introduction		29			29
" .	6b	British Philosophy	4				4
" .	7a	Philosophy of Religion	7	2			9
	7b	Philosophy of Society	II	12			23
Physics	2	Electricity	1	3	7	4	15
"	7	Mechanical Drawing	I	3	2	3	9
"	78	Advanced Drawing	3				3
"1		Manipulation	I	I	1		3
Spanish	2a	Prose and Plays	2	••			2

# REPORT OF THE SECRETARY OF THE FACULTY OF ADELBERT COLLEGE.

There have been nine meetings of the entire Faculty and five of the permanent officers. The actions of the latter body, relating entirely to recommendations for appointment on the staff of instruction, have been already transmitted to the Board.

Very little has been done by the general Faculty, except the ordinary routine business, and this becomes less every year as the committee system is more completely developed.

The action taken in connection with a sort of affiliation with the Case School of Applied Science is discussed in the report of the President. Slight changes have been made in the requirements for graduation, as a result of which the Executive Committee may allow properly prepared students to take more than the regular number of courses at one time, and thereby shorten the length of their residence in college.

An arrangement has also been entered into by which the scientific publications of members of the Faculty are to be collected in the Library and eventually bound up together for distribution.

The chapel service on Saturday has been discontinued, in order to provide time for general college meetings.

Yours respectfully,

SAMUEL BALL PLATNER.
Secretary.

### REPORT OF THE REGISTRAR OF THE COLLEGE FOR WOMEN.

The following table shows the courses as taken in the year 1902-1903:

#### FIRST HALF-YEAR.

Course.	Subject. Inst	tructor.	Senior.	Junior.	Soph.	Fresh.	Special	Total.	Gr. Tel
Anthropology	Prof.	Curtis	88				4	87	37
Art	History of Ancient ArtProf.	Fowler	8	2			1	6	6
Bible 1	Life of ChristPres.					77	6	83	
3	The Acts of the ApostlesMr. I			4	44	1	6	55	
" 4	Old TestamentMr.,F	•	1	45			3	49	
" 9	Old Testament Poetry Mr. H		2	••			••	2	189
Biology 2	Comp. Anat. of Invertebrates. Prof.		1			••		1	
" 3	Comp. Anat. of Vertebrates Prof.	Herrick	1					1	2
Chemistry 1	Non-Metallic ElementsDr. G	ruener	1	22	10		8	36	
2	InorganicDr. G	ruener	7					7	
5	Organic Dr. G	ruener	1		••		••	1	44
Beonomics 1	Elements Dr. Y	oung	8	7			1	16	16
English l	Principles of Composition Mr. S	itevens			1	74	11	86	
" 3	Daily Themes Mr. S	tevens	1	7	5		4	17	
" 5	ThemesMr. S	itevens	2					2	
" 8	Old English Prof.	Hulme	2	1				3	
" 16	Classicism Prof.	Hulme	2	7	18	1	9	87	
' 19	English Novel Prof.	Hulme	11	8	1			15	
20	Poetry-1880-1880 Prof.	Hulme	28	10	1		8	87	197
French 1	Elementary Dr. O	liver		5	6	40	5	56	
3	Modern French Dr. O	liver	2	4	22	2	2	32	
" 5	Classic Drama Dr. O	liver	5	11	1	4	2	23	111
Geology 3	DynamicProf.	Cushing.	14	4	1		8	22	22
German 1	Elementary, 1st yearDr. F	ife	1	5	5	24	5	40	
3	Elementary, 2nd yearProf.	Harris		6	14	9	8	<b>32</b>	
" 5 a	German LiteratureDr. M	ſeyer	2	9	1	2	2	16	
" 5 b	Modern Language-Freshmen Dr. Fi	fe		2	1	17	1	21	
7	Goethe Dr. F	ife	1	1	7	8	3	20	
10	Lessing Dr. F	ife		1	1		1	3	
· <del>·</del> 17	ContemporaryDr. F	ife	10	6	3		1	20	152
Greek 1	HomerProf.	Fowler				22		22	
" 3	DramaProf.	Fowler			7			7	
" 5	PhilosophyProf.	. Fuller	2	8	٠.	٠.		5	34

#### WESTERN RESERVE UNIVERSITY.

	FIRST HALF-Y	EAR.							
Course.	Subject. I	nstructor.	Senior.	Junior.	Soph.	Fresh.	Special.	Total.	Gr. Ttl.
History 1 a	Middle AgesDr.	Hunt			23	1	8	27	
" 1 b	Middle AgesDr.	Hunt		1	2	4	3	10	
" 2	Modern BuropeDr.	Hunt	••	••	1	2	8	6	
" 5	American ColonialDr.	Hunt	4	10	4		2	20	
" 7 a, b	French RevolutionPro	of. Bourne	85	29	2		8	74	
"· 11	English ReformationPro	t. Bourne	8					8	
" 18	Life in Middle Ages	. Severance.	5	1			1	7	152
Hygiene	Dr.	Chapman,						76	76
Italian	ElementaryDr.	Oliver	4	8	1		1	9	9
Latin l a, b	LivyPro	of. Perkins	1		1	79	3	84	
" 8	Horace, Odes and Epodes Pro	of. Perkins			28		3	31	
4,5	Cicero's Letters, PlinyPro	of. Perkins	11	16	1		1	29	144
Mathla, b, c	TrigonometryPro	of. Palmie			4	77	4	85	
" 5	Analytical Geometry Pro	f. Palmie		8	4		1	8	
" 7	Integral Calculus Pro	of. Palmie	2	4				6	99
Music	Hist. of Music and Harmony. Mr	. Clemens	2	4	1		3	10	10
Philosophy2	PsychologyPro	of. Aikins	1	34	8		6	49	
" 3	BthicsPro	of. Aikins	7	1				8	57
Physics 1 a	GeneralPro	f. Whitman				22		22	
" 1	Mechanics, Heat, SoundDr.	Reichmann	4	6	15		1	26	
" 8	Physical Optics Pro	of. Whitman	2	1				8	
" 10	DescriptivePro	of. Whitman	2	4	14		3	23	
" Lab'y	Pro	of. Whitman			6			6	80

#### SECOND HALF-YEAR.

Course.	Subject. Instructor		Senior.	Junior.	Soph.	Fresh.	Special.	Total.	Or. Tel.
Astronomy	Prof. Whitm	an	ī	3		Ξ.		4	4
Art	History of Ancient Art Prof. Fowler		ī	8	••		2	6	6
Bible 2	Life of Christ Mr. Haydn				••	79	6	85	•
" 5	Old Testament Mr. Haydn		••	48	••		4	47	
" 8	General Epistles		1		4	• •	•	5 1	197
Biology 1	General			20	26	••	4	50	101
" 7	Embryology Prof. Herriel		ï		20	••	_	1	
" 10	Botany		i	ï	••	••	••	2	58
Chemistry 8	Metals		•	. 9	5	• •	••	14	30
" 4	Physiological		 1	3	_	••	••	4	
" 7	Qualitative Analysis		i	_	••	••	••	- 7	10
Beonomics 2	Distribution of Wealth Dr. Young .		_	2	••	••	··. 2	1	19
" 6	Economic History Dr. Young		 5	4	ï	••	_	4	
U	• • • • • • • • • • • • • • • • • • • •		9	_	_	••			14
English 2	Composition		••	٠:	2	78	13	88	
	Themes		•:	5	4	••	8	12	
	Themes		1	•:	••	••	••	1	
	Old EnglishProf. Hulme		2	1	•:	••	•••	8	
11	Chaucer		6	8	2	••	2	18	
	Rom'tic Movem't in 18th Cent. Prof. Hulme		)	2	24	••	6	33	
" 18	American LiteratureMr. Stevens		6	9	2	••	1	18	
" 21	Bnglish Prose—1890-1880Prof. Hulme		11	18	••	••	1	<b>2</b> 5	193
French 2	Elementary		1	5	6	38	6	56	
" 4	Modern French		1	1	15	8	1	21	
6	Drama of 18th and 19th CentDr. Oliver		1	10	4	4	8	22	99
Geology 4	Structural and Historical Prof. Cushin		4	1	1	••	••	6	
" 5	PhysiographyProf. Cushin		9	8	6	••	2	20	26
German2 a	Elementary Dr. Fife		1	5	4	21	5	36	
" 4	Modern TextsProf. Harris		••	5	14	8	8	30	
" 6a	ClassicDr. Meyer	•••	2	14	1		2	19	
" 6b	Classic Dr. Fife	•••	••		1	26	3	20	
" 8	19th Century Dr. Fife		1	1	8	6	8	19	
" 14	HeineDr. Fife	•••	9	6	8		2	20	144
Greek 2	Attic Orators Prof. Fuller	• • •				22		22	
" 4	Plato, Apology, CritoProf. Fowler	r.,		••	4	••		4	
" 7	ThucydidesProf. Fowler	r	2	2				4	80
History 1	Middle AgesDr. Hunt					26	8	29	
2	France Prof. Bourne	e.,		2	18		5	20	
" 4	Germany-1494-1786		••	8	10	8	4	20	
" 6	United StatesDr. Hunt		5	15	5		4	29	
" 8	Burope in the 19th Century Prof. Bourne	e	81	12	8		5	51	
" 9	Political Institutions in U. S. Dr. Hunt		7	14			2	23	
" 12	Historical ResearchProf. Bourne	e	9		••	•••	2	11	
" 13	Life in the Middle Ages Mr. Severan	ce.	5	6	2	1	4	18	201
Italian	Elementary		8	8	1		1	8	8
Latin 2	Cicero de Senectute, Plautus Prof. Perkin		1	••	1	75	1	78	-
" 9	Catullus	s. ,			26		2	28	
" 12	Juvenal and Martial Prof. Perkin			22	2			24	
" 15	Teacher's Training Course Prof. Perkin		18		••			18	148
					••	••	••		

#### WESTERN RESERVE UNIVERSITY.

#### SECOND HALF-YEAR.

Course.	Subject. Instructor.				Soph.	Fresh	Special.	Total	Gr. Ttl.
Math 2	Algebra Prof. Palr								
" 6	Differential Calculus Prof. Palr	nie		3	8			6	
" 11	Theory of EquationsProt. Palr	nie	2	2				4	91
Music	History and Harmony Mr. Cleme	ns	1	2		1	8	7	7
Philosophy 1	LogicProf. Aiki	ns		1	20		8	24	
5	History of PhilosophyProf. Aiki	ns		8			4	12	
" 7 and 9	Principles of Education Prof. Aiki	ns	2	6			1	9	
" Sp	Prof. Aiki	ns	2	11	4		1	18	
" 8	Psychology in EducationDr. Marvi	n	6	5		1		12	75
Physics 2	Light, Electricity, Magnetism Dr. Reicht	nann	3	8				6	
" 11	Physical Manipulation Prof. Whit	tman	2	1				3	
Reference Work	Mr. Willia	ms	1	1	1	8	2	8	8
Sociology	Prof. Cur	tis	33			••	1	<b>84</b>	84

#### Respectfully submitted,

BERTHA L. TORREY,
Registrar.

### REPORT OF THE ACTING DEAN OF THE GRADUATE SCHOOL.

During the present year twenty-five students, fifteen men and ten women, have taken work in the Graduate School. Of the twenty-five seven are graduates of Adelbert College and six of the College for Women. With one of the twenty-five this is the third year of graduate study here, with three the second, and with twenty-one the first. Five are candidates for the Master's degree at the coming Commencement.

In the different departments instruction has been given as follows: In Biology, to one student; in Chemistry to five; in Economics to one; in English to six; in German to one; in History to thirteen; in Latin to one; in Mathematics to one; in Philosophy to seven; in Physics to five; in Romance Languages to five.

Respectfully submitted,

H. Austin Aikins,
Acting Dean.

### REPORT OF THE DEAN OF THE MEDICAL COLLEGE.

The total number of students in attendance in the Medical Department has been as follows:

Fourth year class	33
Third year class	32
Second year class	_
First year class	13
Special	2
	_
Total	98

Of the 96 men regularly enrolled thirty-six, or 37.5 per cent., have college degrees, as compared with 23.8 per cent. the year previous. Fourteen, or 14.58 per cent., have had three years of college training. Ten, or 10.41 per cent., have had one year; a total of 60 men who have had one or more years of college training, or 62.5 per cent., as compared with 47.62 per cent. in last year's report. If we include the number of men who will complete their academic courses with the completion of the first year in the medical course, we shall have a total of 43 college graduates in the student body, or nearly 44.8 per cent.

The following colleges and schools are represented in the student body: Ada, Adelbert, Baldwin, Calvin, Case, Concordia, Denison, Geneva, Grove City, Hiram, Kenyon, Mt. Union, Muskingum, Oberlin, Ohio State, Ohio Normal, Poland Seminary, Phillips Andover Academy, St. Ignatius, St. Thomas, University of Colorado, Volant, Wabash, Westminster, West Virginia Institute, Wittenberg and Wooster. Total, 27.

The following states and countries are represented, viz: Massachusetts, Michigan, New York, Ohio, Pennsylvania, West Virginia and China.

During the present year 13 men have entered the first year as compared with 12 last year, while the second year has 18 men, a total increase of six men, as compared with the year before. Of the 12 men of the class of last year two failed to return, one on account of not keeping up with the work, and one on account of tuberculosis, necessitating his seeking another climate.

The character of the work performed by the members of the first two classes continues to be very satisfactory, emphasizing the undoubted value of the better preliminary training.

Professor G. N. Stewart, Head of the Department of Physiology, has resigned his chair here to accept a similar post in the University of Chicago. This University has thereby severed official relation with a man whose work has been an inspiration to all students and colleagues. This vacancy has been filled by the election of Dr. J. J. R. Macleod, a graduate of the University of Aberdeen, Scotland, who has been strongly recommended for his work as an original investigator and teacher.

The receipts from student fees have been slightly in excess of \$11,000. The outlook still for one year is for lessened receipts from this source as the number of students will certainly diminish as full college requirements for all classes will not be in effect until the beginning of the year 1904-05. So far as we can judge at present, we shall probably have about 75 to 80 men, when the college requirements go into full effect. With the present fees we can scarcely expect an income of more than \$10,000 from students at that time. It is perfectly evident that without generous financial assistance from those interested in the development of higher medical education our problem must be a most difficult if not hopeless one.

We are now able to pay pitifully small salaries to the laboratory men who devote all their time to teaching and research work—much smaller than that paid by any of the better schools of the country for corresponding services. This department will always be under a deep debt of gratitude to the men, both laboratory and clinical, who have labored so unselfishly and enthusiastically for the bettering of medical education here. The clinical facilities of the school have vastly improved during the year from the fact that the hospitals have been unusually crowded with patients throughout the year, all of them being taxed to their utmost to care for the patients applying for admission. There are no schools in the country which will offer better clinical facilities for a man than this school will afford when the classes have become smaller because of advanced requirements. After careful consideration the Faculty have voted to recommend the doing away of the Chemical Laboratory as heretofore conducted. This was done for two reasons, chiefly these: 1st. Because most college men who have completed three years of college work have had their training in organic and inorganic chemistry; 2d. For financial reasons, the laboratory and teaching staff requiring a considerable expenditure for the small number of men who have not already had their chemical training. It is believed a considerable sum of money can thus be saved with no detriment to efficient training in medicine.

With all the economy which we can practice, however, there must be a large annual deficit, until such time as some generous friends of higher medical education shall come forward with an endowment. The annual income of the school should not be less than from \$75,000 to \$100,000, if we are to be placed in the position which will enable us to take full advantage of our opportunities. I am thoroughly convinced that there is no place in this country where a million, or a million and a half, dollars can be placed with bet-

ter hope of improving medical education than here in Cleve-The reasons for this belief seem clear. With very small means there has been organized a school with high ideals; a body of men enthusiastic for original research and effective teaching has been collected; high preliminary training has been established; the clinical facilities afforded by Lakeside, Charity, and the other hospitals in affiliation are second to none in this country. Within two hundred miles of Cleveland there are not less than 43 colleges of a good grade, with about 23,600 students; there are working about this institution a considerable body of well-trained men; material for research work is cheap and living is economical; mechanical contrivances of all kinds can be readily procured; we have ample buildings, laboratories organized, a splendid esprit de corps; a harmonious profession; in fine. a thorough organization ready to do effective work if we had endowment sufficient with which to pay men for their time, so that their energies might be devoted to investigation and teaching, instead of to making a livlihood.

Very respectfully,

B. L. MILLIKIN,
Dean.

### REPORT OF THE DEAN OF THE FRANKLIN T. BACKUS LAW SCHOOL.

The school year 1902-1903 has been a very satisfactory year for the law school. The new rule of the Supreme Court of Ohio, requiring candidates for admission to the bar to have a preliminary education equal to that given by the best high schools, caused a falling off of twenty-five per cent. in the number of men taking up the study of law in Ohio. This in turn caused a decrease in the attendance of the law schools; but while the enrolment in other schools has decreased from twenty-five to fifty per cent. that of our school fell off only seven per cent. It is hoped that this lost ground will be entirely recovered during the ensuing year.

For the third year in succession every man sent by our school to the June bar examinations has passed, and two out of the three first honor men during the last three years came from our school. It is generally conceded that the record of no other school equals this.

The new rule of Adelbert College permitting seniors to take nine hours class work each week in the Law School has been in operation during the year and has proved exceedingly satisfactory. Because of this rule several men from other colleges propose to finish their courses in Adelbert, so that they may take advantage of this rule which enables them to save one year's time. It is believed that both the College and Law School will receive great advantage from this rule.

Much of the success heretofore enjoyed by the school is due to the loyalty of the alumni. Eighteen per cent. of the members of the Cleveland Bar are former students of

the school. This proportion is increasing rapidly each year. These men are already exercising a large influence in the legal profession in Cleveland, and the time is not far distant when the students of this school will exercise a powerful influence upon the administration of justice, not only in Cleveland, but also in the entire state. That the training of these men should be of the highest possible standard, we believe all will admit. To do this work properly a large increase in the endowment of the school is necessary. And we have faith that in due time this aid will be forthcoming.

Respectfully submitted,

Evan H. Hopkins,

Dean.

### REPORT OF THE DEAN OF THE COLLEGE OF DENTISTRY.

The attendance is divided as follows: Seniors 42; Juniors 34; Freshmen 38; Postgraduate 1.

Seniors work 32 hours per week.

Juniors work 38 hours per week.

Freshmen work 42 hours per week.

During our first year we had only 20 students in all three classes and only four graduates. Counting the present senior class, we have 242 graduates, and they increase our strength in many ways. In 1892 we had nine teachers; we now have twenty.

Changes in the Faculty, viz: Professor Frank Leslie Smith, of Denver, Instructor of Orthodontia, in place of Professor Case, who resigned; John Shell Tierney, M. D., Lecturer on Anatomy; Joseph Anson Coates, D. D. S., (one of our graduates), Demonstrator of Operative Dentistry; J. Charles McFate, A. B., and Shander Harry Solomonson, B. S., Assistants in Histology.

During the Session a greater number of cases came to the clinics than ever before, and a large number were charity patients. These cases consisted of treating aching and diseased teeth; diseases of the oral cavity, surgical operations, neuralgia, filling teeth, extracting, making crowns and bridges, partial and full artificial dentures, obturators, etc.

In the four year course, which begins next October, the curriculum will cover a greater number of subjects than formerly, so that we really ought to have more room, teachers, and money, in order to accomplish systematic and scientific work in all advanced methods, and to bring about better future results for the student and university.

We would be grateful to any one who will donate dental, medical, technical and scientific books, so that we may acquire a reference and working library, giving our students and friends access to a broad knowledge of useful facts. We also desire specimens of any kind which will help teachers or students. With the exception of what was given to the Dental department, for fitting rooms in the Medical department building for dental work in 1902, (and nearly all these fittings were left when we moved out six years ago) the Dental department has been obliged to rely entirely upon its own resources, and had it not been for many personal sacrifices on the part of the President and Faculty, the Dental department would have been very much more in debt than it is at present. I desire to express my hearty thanks to the gentlemen who have labored earnestly to make this department a credit to the University. It would be a grand thing for our University, and also for Cleveland as a great and varied educational center, which she is fast becoming, if this debt could be expunged and the Dental department have a building fitted to its needs and the growing demands of the times, and which would place us on a par with other first-class dental colleges. A new building and good equipment would add largely to our prestige, and be a great factor in gathering more students, and assist in making them better dentists and better men; also, it would be of the greatest practical benefit and time-saving usefulness, if all of our work could be done under one roof.

Respectfully submitted,

HENRY L. AMBLER,

Dean.

### REPORT OF THE SECRETARY OF THE COLLEGE OF DENTISTRY.

The dental department has just completed its eleventh year. It has trained, by its efforts, and sent out (including the present graduating class), 242 graduates. These are scattered from ocean to ocean.

The students numbered 115 during the session of 1902-1903. One-tenth of the students came from Canada, and one student from Russia. The following states were represented: Ohio, Pennsylvania, New York, Illinois, Iowa. The greater number came from our own state. It is known that the small-pox scare last fall resulted in a number of students not attending here.

The faculty is composed of nine professors, five lecturers, three demonstrators and three assistants.

It now devolves upon the faculty to arrange a curriculum suitable for a four years' course, which commences with the next session. This will necessitate an enlargement of some of the courses of study and an addition of other necessary studies.

The college rooms are to be remodeled somewhat during the vacation to meet the demands of a readjustment of instruction and requirements.

The clinics were unusually successful and the number of cases operated upon was greater than any previous year.

Respectfully submitted,

W. H. WHITSLAR, Secretary.

### REPORT OF THE LIBRARIAN OF ADELBERT COLLEGE.

In the autumn of 1902 an effort was made by the president of the University to obtain funds for the purchase of books for the library. As a result of this effort the sum of \$2,000 per year for five years was pledged by trustees, alumni and friends. Of the amounts promised the following sums have been paid: W. S. Tyler, \$1,000; E. W. Oglebay, \$500; J. H. Wade, \$500; A. Gehring, \$100; Samuel Mather, \$500; S. L. Severance, \$125; M. J. Lawrence, \$100; W. G. Mather, \$100; H. E. Andrews, \$100; Mrs. Samuel Mather, \$100; Martyn Bonnell, \$50; D. Z. Norton, \$50; J. H. McBride, \$50; C. W. Bingham, \$50; H. A. Garfield, \$50; F. W. Gehring, \$50. In June, 1902, a gift of \$10 (for books) was received from Mr. J. G. White, and in October a gift of \$50 came from the same source, to meet a certain expense of administration.

On January 7, 1903, the treasurer reported that the funds in hand available for the purchase of books and supplies amounted to \$3,660.58, which sum is inclusive of the \$2,000 representing the first of the five-year donations mentioned above. This latter sum the library committee apportioned as follows: Binding, \$200; Biology, \$100; Chemistry, \$50: Economics, \$150; English, \$200; Geology, \$75; Greek, \$150: History, \$200; Latin, \$100; Library Committee, \$375: Mathematics, \$50; Philosophy, \$50; Physics, \$100; Romance Languages, \$200.

The statistics of additions to the library are as follows:

By gift	480	PAMPHLETS. 4II
Volumes in library May 1, 1902	1,539 45,354	
Total	46,893	

This number is inclusive of the Kirtland Collection of 2.160 volumes, and exclusive of a number of duplicates received during the year.

Following is the list of donors of books and pamphlets. from May 1, 1902, to May 1, 1903:

League.

Adams, Henry. Adelbert College, Class in Finance. 1903. Alleghany College. American Academy of Medicine. American Friends' Peace Conference. American Geographic Society.
Amherst College Library.
Andover Theological Seminary.
Antioch College. Armour Institute of Technology. T. & S. F. Ry. Atlanta University. Augustana College. Baker, A. R. Baker & Taylor Co. Balch, E. S. Baltimore College of Dental Sur- Cooper Medical College. gery. Bellevue College. Beloit College. Berlin-Königliche Museen. Besançon, University of. Bolton, Mrs. S. K. Bourland, Benjamin Parsons. Bourne, Henry Eldridge. Bowdoin College Bradley Polytechnic Institute. Brigham Young College. Brown University. Bryn Mawr College. Burgess, T. C. Burrows Bros. Co. Burton, T. E. California, University of. Canisius College.

Carnegie Public Library, Cambridge.

Case School of Applied Science.

Central University of Kentucky. Chicago Municipal Library.

Carthage College.

Chicago Theological Seminary. Chicago, University of. Cleveland College of Physicians and Surgeons. Colby College.
College for Women, W. R. U.— Class of 1903. Colorado – Bureau of Labor Statistics. Colorado, University of. Columbia University. Columbia University Library. Columbian University. Columbus Public School Library. Connecticut—Bureau of Statistics of Labor. Cornell University. Creighton University. Crocker-Wheeler Co. Cumberland University. Curtis, Mattoon Monroe. Curtis, William Eleroy. Dangeard, P. A.
Davidson College.
Dayton Public Library & Museum.
Depew, Chauncey M.
Detroit College. Drury College Ehrlich, Frederick.
Elmhurst College.
Elmira College for Women.
Emerson, Oliver Farrar.
Emerson College of Oratory. Erskine College Carlisle Indian Industrial School. Euclid Avenue Baptist Church, Cleveland. Fargo College. Findlay College. Fisk University. Florida State College. Fowler, Charles N.

Chicago—National Business

Fowler, Harold North. Franklin College. Gaines, John W. Galbreath, C. B. Gehe-Stiftung, Dresden. Georgia, University of. Gideon, A. Green, Samuel A. Gridley, Albert L. Gustavus Adolphus College. Hamilton, J. Henry. Hamilton College. Hand, E. N. Haring, Harry Albert. Harris, Charles. Harvard University. Havana (Cuba), Dep't of Health. Haverford College. Haywood, H. A Herrick, Francis Hobart. Hiram College. Hobart College. Hollander, J. H. Howard University. Illinois, University of. Indiana—Dep't of Statistics. Iowa, State University of. Iowa, University of. Jefferson Medical College. John B. Stetson University. John Crerar Library. Johns Hopkins University. Kansas, University of. Kenyon College. Kromer, A Lafayette College. Lake Forest University. Lake Mohonk Conference. Lawrence University. Lehigh University. Leland University. Lewis Institute. Line, E. D.

Lombard College.

Loubat, Duc de. McCormick Theological Seminary. McLauchlan, R. Macnie, John. Maine—Bureau of Industrial and Labor Statistics.
Mansell, W. A., & Co.
Marietta College.
Maryland Geological Survey.
Massachusetts—Bureau of Statistics of Labor. Massachusetts-State Board of Arbitration and Conciliation Massachusetts Institute of Technology. Massachusetts Single Tax League. Merck, E., & Co. (Darmstadt). Miami University. Michigan—Bureau of Labor and Industrial Statistics. Michigan College of Mines. Michigan, University of. Middlebury College. Mills College.
Minnesota Valley Historical Soc'y. Howard University.

Humphreys, Henry H.

Illinois—Bureau of Labor Statistics. Minnesota, University of.

State Roard of Arbitra
Minnesota Valley Labor Statistics. Minnesota, University of.

Missouri—Bureau of Labor Sta Missouri, University of.
Missouri, University of State of. Iowa—Bureau of Statistics of Labor. Montana—Bureau of Agriculture, Iowa College.

Labor and Industry Labor and Industry.
Morgan, M. H.
Morgan College.
Morley, Edward Williams. Mt. Holyoke College. Mt. St. Mary's College. National Civil Service Reform League. Nebraska, University of. New Jersey—Bureau of Statistics of Labor and Industry. New Jersey-State Board of Tax-ation. New Jersey Geological Survey. New York—Bureau of Labor Sta-Leipzig, University of.

Leland Stanford Junior University. New York—State Board of Tax Commissioners.
N. Y. Central Ry.
New York Historical Society. New York Library Club.

New York University. New York University Club. Niagara University. Northwestern University. Northwestern University, Academy of. Ohio -Board of State Charities. Ohio -Bureau of Labor Statistics Ohio Medical University. Ohio State University Oregon Agricultural College. Otero, M B Otterbein University. Ozanne, C. E. Padelford, F. M. Parker, Miss Charlotte M. Pennsylvania—Bureau of Industrial Statistics Pennsylvania Prison Society. Pennsylvania, University of. Pennsylvania University—Architectural School. Pennsylvania, Western University of. Portici -Reale Scuola Superiore d'Agricoltura. Pratt Institute Library School. Presbyterian College of South Carolina. Providence Public Library. Queen's College and University. Rhode Island—Bureau of Industrial Statistics. Rhode Island State Library. Ritchie, Miss M. H. Robinson, Charles A.
Rochester Theological Seminary. Rochester, University of. Rose Polytechnic Institute. Rostock, Landes-Universität. St. Benedict's College. St. Charles' College. St. Ignatius College. St. John's University.
St. Joseph's Seminary.
St. Louis University. St. Olaf College. St. Vincent's College. Seton Hall College. Shurtleff College.

Simpson College.

Smith, William A. Smithsonian Institution. South Carolina College South Dakota, University of. Stevens, B. F., & Brown. Swarthmore College. Tabor College.
Texas, University of.
Thiel College.
Thwing, Charles Franklin.
Toronto University. Tower, Olin Freeman. Trinity College. Tufts College. Union University. United States Government. U. S. Naval Observatory. University of the South. Utah, Agricultural College of. Utah, University of. Vanderbilt University. Vassar College. Vermont, University of. Wabash College. Warren, Howard C. Washburn College. Washington (state)—Bureau of Labor. Washington and Jefferson College. Washington, University of. Washington University (St. Louis). Wells College. Wesleyan University. White, John G. William and Mary College. William Jewell College. Williams College. Williamson, Charles Clarence. Wisconsin—Bureau of Labor & Industrial Statistics. Wisconsin Geological & Natural History Survey. Wisconsin, University of. Wittenberg College. Wooster University. Yale University. Yeates, W. S. Young, A. A. Zanesville Athenaeum. Zeiss, C.

We have pleasure in recording a gift from Mr. Henry Adams, of Washington, D. C., of more than 200 volumes, relating chiefly to American history. This collection has many valuable works concerning the Indian troubles of the early part of the nineteenth century, the Aaron Burr conspiracy, and the War of 1812. Among the many volumes worthy of mention are the following: Peter Force—Tracts and other papers relating to the colonies, four volumes; Stith—History of Virginia (Sabin reprint); Hutchinson— History of the colony and province of Massachusetts Bay, three volumes: Young-Chronicle of the Pilgrim Fathers: Captain John Smith-True relation of Virginia (Deane reprint): Latour—Historical memoir of the war in West Florida and Louisiana, 1814-15, two volumes, 1816; James-Full account of the naval occurrences of the late war (of 1812), 1817; General James Wilkinson-Memoirs of my own times, 1816, four volumes; Clark-Proofs of the corruption of Gen. James Wilkinson.

Other additions to the library worthy of record are the following:

BIBLIOGRAPHY—British Museum Library—Catalogue of printed books, 393 parts, bound in 79 volumes, and Supplement, seven volumes (as far as published); Catalogue général des livres imprimés de la Bibliothèque Nationale, 12 volumes (as far as published); Nicolas Antonio—Bibliotheca Hispana Vetus, 1788, two volumes, and Bibliotheca Hispana Nova, 1783-88, two volumes; Salvá y Mallen—Catálogo de la biblioteca de Salvá, two volumes; Barrera—Catálogo bibliográfico y biográfico del teatro antiguo español; Gallardo—Ensayo de una biblioteca española de libros raros y curiosos, four volumes; Kayserling—Biblioteca española-portugueza-judaica; Muñoz—Diccionario bibliográfico-histórico de los antiguos reinos de España; Larned—The literature of American history; Columbia University—Catalogue of the Avery Architectural Library;

The John Crerar Library—List of bibliographies of special subjects.

SPANISH—Florez—España Sagrada, 42 volumes; Lope de Vega-Obras, publicadas por la Real Academia Española, 12 volumes (as far as published); Cotarelo-Iriarte y su época; Cervantes Saavedra-Don Quijote, comentado por Don Diego Clemencín, six volumes: Amador de los Rios --Historia critica de la literatura española, seven volumes: Menéndez y Pelayo-Antología de poetas liricos castellanos, 10 volumes; Menéndez y Pelayo—Historia de las ideas estéticas en España, four volumes; Menendez v Pelayo-Estudios de critica literaria, three volumes: Hidalgo-Romances de Germania, 1779; Fitzmaurice-Kelly-Historia de la literatura española: Cotarelo-Estudios de historia literaria de España; Bradford—Indice de las notas de Clemencin en su edicion de Don Quijote. We may regard also as accessions to this department the Spanish bibliographical works mentioned under the heading "Bibliography."

REFERENCE DEPARTMENT—Wetzer und Welte—Kirchcnlexikon, second edition, 12 volumes; The New International Encyclopædia (as far as published); The Encyclopædia Britannica (11 new volumes); Van der Aa—Biographisch Woordenboek der Nederlanden, nine volumes.

MISCELLANEOUS—Anales de la Universidad de Buenos Aires, 14 volumes; Strutt (Lord Rayleigh)—Scientific papers, three volumes; Rambaud—History of Russia, three volumes; Mineralogische und petrographische Mittheilungen, 23 volumes; Duvergier—Collection complète des lois, etc., 1788-1886, 88 volumes; Jahrbuch der deutschen Shakespeare-Gesellschaft, 38 volumes; and a small collection of editions of Persius and Juvenal, presented by Prof. M. H. Morgan, of Harvard University.

At the request of Mr. A. A. Young, instructor in economics, and with his active co-operation, letters were written to the labor bureaus and tax commissions of various states,

asking for sets of their publications. Most of these bureaus responded most generously, and the library now possesses a large number of valuable reports.

During the year now closing we have borrowed more freely than usual from other libraries, and have to thank the librarians of Harvard and Yale Universities and Oberlin College for many favors. We have loaned books to Chicago University and Ohio State University, and have had requests from other institutions which we were unable to grant.

The problem of binding is an ever-present one, even when it concerns merely the placing in permanent covers of the periodicals regularly received by the library. Few college libraries have funds sufficient to cover all the binding needed, and to keep their books in good repair. The acquisition of the Scherer collection, with its many thousand unbound books and pamphlets, added to our own particular problem. In 1804, through the generosity of Mr. John Hay. the library was able to spend \$1,000 for this purpose, and 2.200 volumes were bound in that year. From time to time since unbound volumes belonging to the Scherer library have been sent to the binder, as our funds would allow, but we have always had on our shelves a large number of pamphlets in need of covers. In our pamphlet cases, too, were hundreds of dissertations and monographs which would have been much more useful if bound and classified with the books on the shelves. The cost of doing this work under ordinary conditions has rendered it out of the question. A few weeks ago, however, an itinerant binder looked over the work, and offered to insert these pamphlets in covers for the small sum of six cents each, and to repair old books for ten cents each. We have had more than 1,500 pamphlets and books bound for about \$100, or at an average of 62-3 cents each. Of course this work would not serve our purpose in the case of volumes which were to receive hard usage, but for the use we could predict for at least 90

per cent. of the pamphlets selected, it will be quite adequate. It improves the appearance of our shelves very much. Since the work of binding was done in the library building we made an additional saving of the time it would have taken to make a list of the books, if sent out for binding, and to check them when returned.

Owing to the large number of outsiders who wished to take the one-hour course in reference work it seemed advisable to divide the class into two parts, one composed of the assistants from the Public Library and Case Library, and the other of the students from Adelbert College and the College for Women. This step seemed a wise one, because in a seminar course of this kind the work is more satisfactory with a small number of students, and because the training and the point of view of the library assistants and the college students are naturally quite different. The work suffered somewhat toward the end of the term, as the library was short-handed, and the librarian therefore unable to give to the work of teaching the attention needed to produce the best results.

At the beginning of the Easter recess the library force was lessened by the resignation of Miss Esther Crawford, who has had charge of the cataloguing for the past two years. Miss Crawford resigned to accept a position in the Normal Training School of Cleveland. We regret that the lack of assistance in the library made it impossible for us to utilize to the fullest degree her special talents as a cataloguer.

As to the needs of the library, we can only repeat the words of previous reports. An increase of shelf-room is imperative. This can be effected by the placing of more wooden floor-cases in the reference room; the addition of a floor or gallery in the main stack, thus making the upper shelves available; and the construction of cheap wooden cases in the basement, for the storage of duplicates. With

each advancing year it becomes more evident that the library should have an endowment, yielding at least \$5,000 annually, for the purchase of books and periodicals.

Respectfully submitted,

E. C. WILLIAMS, Librarian.

## REPORT OF INSTRUCTOR IN PHYSICAL TRAINING, COLLEGE FOR WOMEN.

<del>----</del> · - <del>-----</del>

As director of Physical Training, I beg leave to report that the classes have rapidly grown larger and the work limited, to a large degree, because of decidedly inadequate accommodation.

One period of the three required in the week has been devoted to prescribed corrective work, the others to general gymnastics, military drill and gymnasium games. There have also been fencing classes, and in favorable weather the out-of-door sports—tennis, tether-ball, rowing and walking.

During the year, the interest in basket-ball has increased and great improvement made in the manner of playing the game. For the first time, in my knowledge, every class has had its representative team, and the inter-class games have aroused the greatest college and class spirit.

The Athletic Association cup was won by the senior team, to be kept by them until next year, when it will be offered once more to the successful team in the inter-class series of games.

The interest in, and necessity for Physical Training, increases each year, and we must keep pace with its growth in order to realize the best results.

Respectfully submitted,

MARY GEORGE CLARK,

Instructor.





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### WESTERN RESERVE UNIVERSITY BULLETINS

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## Western Reserve University

## REPORTS OF THE PRESIDENT AND FACULTIES

1903 - 1904



CLEVELAND, OHIO

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## Western Reserve University.

### REPORTS

OF THE

President and Faculties.



1903 - 1904.

CLEVELAND.

PRESS OF WINN & JUDSON,
1904.

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## TABLE OF CONTENTS.

Report of the President	3
Report of the Dean of Adelbert College	49
Report of the Secretary of the Faculty of Adelbert College	54
Report of the Registrar of the College for Women	55
Report of the Dean of the Graduate School	<b>5</b> 9
Report of the Dean of the Medical College	60
Report of the Dean of the Franklin T. Backus Law School	62
Report of the Dean of the College of Dentistry	64
Report of the Librarian of Adelbert College	66
Report of the Librariau, College for Women	73
Report of the Instructor of Physical Training, Adelbert College	76
Report of Instructor of Physical Training, College for Women	79

#### ANNUAL REPORT.

# To the Board of Trustees of Adelbert College of Western Reserve University and of Western Reserve University:

As President, I have the honor of making a report for the academic year of 1903-4.

The number of students in attendance upon the several departments of the University for the present year and the preceding nine is as follows:

	Adelbert College.	for Women.	Graduate School.	Medical School.	Law School,	Dental School.	Total.
1894-95	132	108	16	105	38	53	452
1895-96	142	128	13	135	41	53 86	512
1896-97	162	128	27	127	68	86	598
1897-98	186	146	25	127	88	91	663
1898-99	182	183	25	109	106	96	701
1899-00	193	171	17	144	IOI	91	717
1000-01	198	210	18	131	102	102	761
1901-02	206	222	16	126	100	113	783
1902-03	212	244	25	95	95	114	785
1903-04	225	236	20	95 86	110	88	765

This table represents an increase in Adelbert College and the Law School. The percentage of increase in Adelbert College is 5.61+, and in the Law School it is 15.78+. In the College for Women is a decline of 3.23+, in the Graduate School of 2, in the Medical School of 9.47+, and in the Dental School of 22.8+. From year to year there may occur slight increase or decline in the number in attendance without causes which are significant, but in other years either increase or decrease is worthy of attention. The special cause of the smaller number of students in the Medical School arises from the continued application of the higher requirements for admission. In the Dental School the special cause arises from the application of the new law

of the Association of Dental Schools lengthening the course from three years to four. The decline in the number of students at the Medical School will continue one year longer. The estimate placed upon the number of students to be in attendance in the forthcoming year is sixty-five. After the next year there should be a rise in attendance. although it will be gradual. As the exceptional merits of the school become more widely known, and as the demands of the community for a higher standard of efficiency in the medical practitioner increase, the attendance will enlarge. The standards set up by the School for admission and graduation are, at the present time, far in advance of the standards required by the community. But the Medical School will gradually lift the community to its own standard of judgment respecting medical practice. In the Dental School a large number of students entered in the academic year of 1902-3. This year was the last in which students could enter so as to complete the course of dental study in three years. Apparently many students entered the School in that year who, under normal conditions, would have deferred their entrance for a year. In case the Association of Dental Faculties should maintain the four years' course, two or three years would be required before the attendance at the various schools returns to the normal number. dimunition in the attendance at the schools in the present year is general.

A full statement of the Treasurer will be submitted as soon as possible after the close of the fiscal year, the 30th of June.

This statement represents, in my judgment, economical efficiency in the use of funds. There is not, I think, a University which is able to do so large and so important an educational work upon so small an income. I am glad to be able to call the attention of the members of the Boards to this significant presentation. For the call, constant and

urgent, in most institutions is for an increase in funds. The call is usually a worthy and necessary one. Colleges are seldom, although occasionally, guilty of extravagance. But economy and efficiency in the use of funds are considerations quite as important as either their amount or their increase.

It is to be said, however, that the economy in the use of funds may approach a point of peril. The peril is that the educational results themselves may be put in jeopardy. The peril too is that the payment to the instructors may be so slight as to produce anxiety or other moods which render their services of less value than they should possess. This peril exists at the present time. The great increase in the cost of living has, I know, caused much anxiety on the part of the members of the various Faculties.

The great gifts of the year include (1) the foundation of the Harry Wilson Payne Chair, and (2) land, and of money for the purchase of land, for the enlargement of the ground of the College for Women. The foundation of the Henry Wilson Payne Chair was made by one who has previously shown his deep interest in medical education as conducted by this University. Mr. H. M. Hanna, the founder of this Chair, has, by this gift associated the name of a historic family of Cleveland in a special form with the University. He has also increased the sense of obligation, already deep, which the Trustees and the community feel toward him for enlarging the facilities for giving a worthy education to physicians.

The gift of land made by Mr. J. H. Wade, together with the purchase of land lying to the south of the tract given by him, makes for the College for Women a great enlargement of its campus under conditions which are specially acceptable. The University now owns one hundred and sixteen feet on Euclid Avenue. Upon the eastern side of

this tract, and at the entrance at the Avenue, Mr. and Mrs. William Chisholm, have offered to erect a memorial gateway. For this gateway plans have already been drawn and accepted.

A question under constant and earnest discussion by educationists in America refers to the character of the degree which is given at the close of the course in the undergraduate college. This question is now under consideration by the North Central States Association of Secondary Schools and Colleges. The question has also, for some years, been before the Committee of Instruction of Adelbert College. The members of the committee do not yet see their way to making a unanimous report upon the essential element of this question. The essential part is whether one degree or three, as now given, should represent the close of the academic course.

The history of the degree of Bachelor of Arts is obscure. The degree in the universities of the fifteenth and sixteenth centuries, represented the passing of certain examinations, and also that the one possessing it had the right to teach. In this country the degree has usually represented the spending four years in an undergraduate course of study. Up to the introduction of scientific studies, in either the technical schools or in the college, it was the only degree, under ordinary conditions, given upon graduation.

In Adelbert College the degree of B. L. (Bachelor of Letters) was first conferred in 1882. The course of study which this degree especially represented was described in the catalogue for 1875-6 as follows:

"Course of study without Greek. After this year students will be admitted, without Greek, to a course of study in all respects as the regular course, except that modern languages will be substituted for Greek."

Those who pursued this course without Greek, received the degree of Bachelor of Arts, as and those who pursued the course with Greek. But in 1882 the degree was conferred upon those who had passed through what was known as the Modern Language Course.

In the catalogue of 1889-90 occurs the first reference to a further degree, the degree of Bachelor of Philosophy. It is said:—

"And the degree of Bachelor of Philosophy on those who have completed the course in which modern language and science are substituted for Greek and more advanced German."

The degree of Ph. B. was first conferred in 1893.

Since June, 1882, the degree of B. L. has been conferred upon seventy-five graduates of Adelbert College, and since the year of 1893 the degree of Ph. B. upon eighty-three graduates. In these two periods the number who have received the degree of A. B. is respectively two hundred and ninety-five and one hundred and seventy-five. In the last five years the number who have received these degrees is as follows: A. B. eighty-six, B. L. thirty, and Ph. B. sixty-two.

In the year of 1902, for which the last report of the Commissioner of Education of the United States is made, were conferred 5,446 degrees of B. A., 774 degrees of Ph. B., and 248 degrees of B. L. It is apparent that there is at present a strong movement among American colleges toward the concentration of academic honors in a single degree.

The general question divides itself into several parts: First, the requirements for admission to a course which shall lead to the Bachelor's degree of any kind; second, the content of the course itself as taken in the college; third, the methods of the course having reference to combined studies for a portion of the undergraduate period with the

studies of professional school; fourth, the length of the course, referring in particular to the question whether it shall be three years or four; fifth, the special advantages or disadvantages of any course of study as seen in the results worked in the character of students and graduates.

In respect to the requirements for admission to the course which leads to the three degrees now given, the conditions common to all include a certain knowledge of mathematics, Latin, and of English. For admission to the classical course a certain requirement in Greek is added. For admission to the Modern Language Course a certain knowledge of either French or German is also required. For admission to the Latin Scientific or English Course a certain knowledge of physics, chemistry and of history is added. In general, therefore, it may be said for admission to these three courses looking forward to three different degrees, identity prevails for about three-fourths of the content. The other fourth varies between Greek, German or French, and an elementary knowledge of two sciences, and a certain knowledge of history.

The studies of the Freshman year of all students are determined by the studies which they offer for admission. The studies which are taken in common represent the three studies which they in common present for admission,— English, Latin, Mathematics, together with a short course in the Bible. In addition, men of the Classical course continue their Greek, and take also elementary German. Those who enter upon a Modern Language course continue French or German, or begin either French or German. The students entering the Latin Scientific course continue chemistry, physics and history. Following the Freshman year, however, the whole course becomes essentially elective. The one exception refers to the Sophomore class being required to take one hour of English throughout the year. The only condition attending the freedom of the elective system

in Adelbert College is that each student is to complete not less than four half-year courses three hours each of the following groups:

A.—Language and Literature:—

English, German, Greek, Latin, Romance Languages.

B.-Mathematics and Natural Science:-

Astronomy, Biology, Chemistry, Geology and Mineralogy, Physics and Mathematics.

C.—Philosophy, History and Social Science:—

Economics and Politics, History, Philosophy.

The unique advantages which belong to the pursuit of any study is among the most interesting of all educational questions. I have therefore asked each of my associates in the two undergraduate colleges what unique advantages they do regard the subject they represent as giving to the student. If these advantages are individual and specific, it is possible that the results secured in the character of the student should be represented in different academic symbols. But if these advantages are not unique, it might be safely inferred that there ought to be slight differentiation made in the academic symbols which embody these various courses. I therefore have much pleasure in taking extracts from the letters which the members of the Faculties have had the goodness to write to me in reference to the unique advantages for the student of the studies which they teach. One or two members, it may be said, indicate their belief that no unique advantages belong to their subjects.

A professor of Latin writes:

The literature and art of Greece and Rome are the bases of all subsequent literature and art, and their civilization is the basis of all subsequent civilization. Without the knowledge of the original, the copy is only partially intelligible, and the present can be interpreted only in the light of the past. The reason for teaching Greek and Latin in college and school is that these are the two languages

which were the media through which the best thought of the world was made known to contemporary and succeeding ages, and that they form the essential element in any real education and culture.

Two instructors in Greek reply, one briefly and the other at length, saying:

- (a) Acquaintance with a literature which is in a sense the foundation of all other literatures worth reading. This means not only familiarity with a subject matter and views of life which are worth acquaintance in themselves, but also a better appreciation and greater enjoyment of modern literature with its many references to the Greek and imitations of it.
- (b) Greater facility and accuracy in the use of English. Translation from any language contributes more or less to this result, but the difference in idiom between English and Greek (or Latin) is so much greater than that between English and the modern languages, and the translation therefore requires and cultivates so much more ingenuity in the management of English, that it seems fair to mention this among the advantages of the study of Greek. Besides this, the meanings of English words derived from the Greek should be better appreciated when one is familiar with the originals from which they are derived.

The second says:

In at least one respect, the value of a training in Greek is unique; in the study, namely, of the development of Greek literature. What makes Greek so indispensable is that it is the only really normal literature of the world. Most literatures come into being in an abnormal way, under unnatural conditions, and their development is influenced by so many foreign elements that it is often next to impossible to speak of a natural growth. Roman literature, for example, begins with the drama, a beginning that can in no wise be conceived as natural, while its development has been influenced by

Greek to such an extent, that with Greek eliminated little would be left of Roman literature. In Greek we find a natural beginning made in Epic poetry, and each successive department comes naturally forth from its predecessors. feeding on the materials prepared for it. All later departments lie implicit in the earlier. Now then a knowledge of Greek and its literature makes it possible for the student of other literatures to understand their development, and the relations existing between their various departments, for it enables him to measure them by the only real literary norm we have, namely, the Greek. That is to say, comparison with the norms offered by Greek has the advantage of helping the student of any other literature to distinguish between what is inherent and what is external, what is natural growth and what is simply addition or even conscious imitation. All modern literatures are so interdependent and so dependent on earlier types that it is well nigh impossible to distinguish their own essential elements. Greek literature, on the other hand, naturally developed in isolation and fostered by the artistic sense of the Hellenes,-the finest ever given to manshows plainly those elemental processes that are active in the literary development of a people. That, I take it, is one of the peculiar advantages to be derived from Greek study, and one that is not generally emphasized,

If we turn to Greek philosophy, a contemplation of Greek thought shows how truly our own philosophy is but a progeny of the Greek. Of the "Seven World-Riddles" all were compounded by the Greeks. They asked all questions that we are trying to solve to-day. Even in the poetry of Homer and Hesiod these problems are all prefigured. Familiarity with Greek, therefore, enables the student to read Greek thought at first hand, to go to the fountain-head instead of depending entirely on books written about Greek thought. Such books give after all but the views of the facts as they have shaped themselves in the mind of someone of

recent or even our own time. Direct study of Greek philosophy helps the student to see behind accepted modern conventions, to understand the elements that lie at the basis of modern thought. In Greek philosophy as in Greek literature there is comparative isolation and consequently spontaneity. As in art, so in thought the Greeks soon freed themselves from the leading-strings of the East and struck out along lines of their own. Hence the student is here again enabled to view elemental processes; those, namely, that have been at work from the time of little or no abstraction, no definition, to the time of pure abstraction and scientific definition. It is just in this particular that judicious study of Plato, for instance, is of vast importance and yields valuable results. To get good out of Greek in this particular, one must study Greek for himself. Translation will always remain inadequate. If I may quote such a source as Alfred de Musset in such a connection—the student of Greek can say "my glass is not large, but I drink out of my glass."

Another distinct and unique advantage to be gained from the study of Greek is the appreciation of artistic form in literature. No other language shows a like suppleness and adaptability to artistic form; no other literature presents such wonderful examples of formal perfection as the Greek, prose as well as poetry. In prose this attention to form results in the periodic structure so characteristic of Greek. This feature of Greek prose becomes of additional value to the student on grounds entirely apart from the study of form, and in this way. Proper study of Greek literary prose. because of its long sustained rhetorical periods trains the mind of the student to carry a given idea along through long stretches of accumulating data and subordinated circumstances until the thought is finally completed and the original idea appears in the full setting of its grammatical and logical regimen. Analysis is of course necessary to aid interpretation, but analysis without synthesis becomes mere mechanicai

routine. The student must be taught to grasp the meaning of the completed structure as a unit, feeling the relation of the parts to each other and to the whole without being forced to rely entirely on analysis. Translation is here, of course, utterly inadequate. Only direct study of the Greek can reveal its marvellous form and at the same time train the student to absorb the thought of a writer as it was born and developed in the author's mind.

It is needless to dwell at length on the aesthetic value of the study of Greek art. Greek art defies humanity, the whole man, body and soul. It did not reach the point of mediaeval art so as to feel the body as a prison of the soul. It rather regarded the soul as reflecting its own divinity upon the body. Greek art is the product of a physically perfect race contemplating its own beauty. At no period of the world's art do we find the same felicitous combination that we find in the Greeks of the fifth century, that, namely, of a mind wonderfully endowed with fine artistic sense and a body beautiful and perfect.

As to the purely disciplinary advantages of classical study one thing is apt to be overlooked, and that is, the uncertainty of the results obtained. It is a point frequently emphasized by my honored teacher, Prof. Gildersleeve, and it applies to Greek in a greater degree because Greek is the more difficult. In interpretation, in textual criticism, in syntax and etymology innumerable problems arise that are capable only of more or less probable solution, just as in real life we are often forced to act on merely partial evidence. The student's mind is thus taught to balance between likelihoods and, what is still more important, to suspend judgment and confess impossibility,—a wholesome check to the natural tendency to dogmatism. A simple question cannot always be answered "yes" or "no."

Before closing I cannot refrain from giving expression to one more thought that often comes to me when asked of what use the study of Greek or Latin is to a student. The college student is generally, and correctly, taught to consider the work in Greek a part of his intellectual discipline. The actual reading, however, of Greek authors, and classical authors generally, is often made of too little account in the course of study. The ancients, of whom the Greeks are the youngest—for Rome is the bridge that connects the ancient with the modern—must not be used more as a vehicle for mental gymnastics than as "food for mind and heart." Thought is continuous as history is continuous, and the ancient writers and thinkers, if properly taught, can still yield much that even the youngest student can well afford to digest and assimilate.

The unique advantages possessed by modern languages other than English are discussed by several teachers. Two teachers of German reply as follows:

I am unwilling to claim for German (including in the one word both the language and the literature) any unique advantage in the way of culture over the other great languages of civilization which form a part of our college course. If the student has opportunity for only one language, it is to my mind a matter of personal rather than educational concern whether that one be French, German, Greek, or Latin.

The successful study of any language on its formal side strengthens the memory and develops the power to observe and make nice discriminations, as well as to proportion effect to cause. Each language works towards these ends in its own way, but the ultimate result is much the same for intellectual training. The literature of any great people furnishes food and stimulus for the soul, while as information it is equal to history with its allied branches and to philosophy in its capacity to broaden and awaken. And yet here again, if there is time for some acquaintance with only one great liter-

ature, the student can not go amiss, no matter which one he takes.

For our day German has a certain practical advantage which can not be lightly ignored. I do not mean thereby its value as a commercial instrument, although that may be of importance to many, but its position as the language of the country now most active in every kind of scientific and scholarly investigation. For the advanced student of every sort, whether within or without university circles, German is just now more nearly indispensable than any other language.

A second professor of German writes:

- (1) Besides that valuable mental training which it shares with every other subject, the study of German offers a unique intellectual advantage in the fact that it is the most indispensable help an English student could have in the task of really appreciating and understanding his mother tongue. German and English are not merely closely related languages; their kinship is fundamental, vital, original, and has to do with the most essential elements of our native speech. The framework of English grammar is of Germanic origin and, as far as English is still inflectional. Germanic in form as well. By far the greater part, also, of our vocabulary is Germanic. Of common words and idioms, the universal, indispensable words of the home, the shop, the street, of everyday life and contact fully 90 per cent go back to Germanic origins. If the very bone and marrow of English speech is thus German, there must be a great and unique advantage for every student of English in the study of German.
- (2) Another unique advantage lies in the fact that German helps us, as no other subject can, to understand our English mind and character, the spirit of English literature, the essence of our mythology and folklore, the reasons for our social and economic conditions, the basis of many of our legal and religious usages, in short German helps, as nothing

else does, to understand the philosophy of English civilization—because, whatever architectural varieties that great structure may show, its foundations and framework are Germanic.

- (3) A unique advantage, perhaps better called intellectual than cultural, lies in the well-known fact that a knowledge of German has become indispensable to the student who would pursue his special study beyond the elements. This is an age of specialism. The specialist must be trained by specialists. The greatest specialists in almost every field are Germans. The distinctive qualities of German mind have made them first in nearly every department of research, of abstract thought, and of scholarship. If "all the civilized world is going to school to Germany," it is because the German university is the great training school for all the highest phases of learning. All our own advanced work, all our research, is German in plan and method; if we would understand it and have part in it, we must know German.
- Another advantage, which I shall call practicalthough you may classify it as you please, is that German helps, as nothing else can, to understand the manifold and ever closer relations between the German people and our own. New York is the third, perhaps now even second. largest German city in the world. An immense German population is spread over the length and breadth of the country. Commercial and diplomatic and other agencies are bringing the two peoples ever nearer together. Whatever the reasons, the fact remains that German thought, methods. and thories are more and more strongly influencing our own -not only in matters of education and scholarship, but in our social, political, religious, artistic, aesthetic, and material life as well. Knowledge of German is of unique advantage not only to the American scholar, but to the American artist, musician, theologian, economist, statesman, and man of af-

fairs, who would intelligently accept or intelligently seek to combat these potent German influences.

- (5) Again let me mention the immense cultural advantage of knowing German for its own sake. United Germany stands among the foremost of modern nations, her influence is dominant in modern civilization, her literature is the only one that can be compared with English for richness and power. To know German art, music, literature, history, German life, culture and civilization must be a unique advantage to every liberal minded, liberally educated man.
- (6) The literature of a people is the record of that people's life, the history of its efforts, the reflection of its manners, morals, and character, the embodiment of its conscience and of its ethical standards. In the absence of all absolute ethical standards the knowledge of German must be of unique advantage to the English race in the proper estimate of its own ethical values, because, of all the nations, the Germans are by blood, character, and traditional environment closest akin to us.

Of the Romance languages, and especially of French, one professor writes:

I cannot see any unique advantages in the study of the Romance languages, as that study is carried on in Adelbert College, and so far as I know, in all the colleges of this country, unless the possession of any given knowledge, of whatever kind, and however insignificant in quantity, be in and for itself a unique advantage to the possessor. It is entirely conceivable to me that the highly specialized pursuit of this subject, as indeed of almost any one of the others generally recognized as sciences to-day, may present to the student advantages so individual as without great exaggeration to be called unique; but with that kind of work we have nothing to do here.

To my mind the great advantage of the study of my subject in an undergraduate community, beyond the purely pedagogical value it has in equal measure with all other language study, is the fact that at every step beyond the very first it comes into close touch with almost every other study of the curriculum, and to the intelligent student may be made the means of a broader culture in all these others. It lies in its essentials very close to history, Latin, economics and all work in modern literature, art and philosophy; and in a coarser, more material way it is of the greatest value to the student of the natural sciences.

Ethically its advantage is that it can be made the provoking cause for plenty of good, hard work.

A second teacher writes regarding the Romance languages saying:

The Romance languages are well fitted to furnish the benefit of discipline. Their resemblance to the mother tongue in construction and vocabulary makes the comparison easier and richer in results. The student deals here with forms of expression closely allied to his own and to which his mind can adapt itself with less waste of time than is the case in the study of the ancient tongues. The latter indeed present so many initial difficulties that those advantages are derived only at a much later stage, a stage which a great proportion of students never reach. Yet the difference between English and French, for instance, is sufficiently great to compel the translator to exercise all the judgment and discrimination he is capable of, to use the proper word, expression or construction, and hence to make quickly a judicious choice among his own vocabulary. viously, contributes much to a better insight into and use of his own tongue.

The Romance languages, especially French, are entirely free from this drawback of obscurity. Nothing repels the Frenchman like obscurity of thought or expression. Clear-

ness is as characteristic of the French language as it is of the French mind, and the great works of French literature owe their lasting fame as much to the perfection of their style as to the intrinsic worth of the ideas they contain. I doubt that any other modern language offers better models of clearness, accuracy and elegance of expression, in a word, of style than the French literature of the last three centuries. Now if it is true, as a celebrated French critic claims, that "what is well conceived is clearly expressed," in other words that clear thought results in a clear style, it is equally certain that to exact of the student a clear, accurate, concise rendering into his own idiom of a perfect piece of French literature is to cultivate his power of thinking logically and honestly.

The ability to read the Romance languages in college, as an aid to the prosecution of advanced studies, can hardly be overestimated; this advantage they share equally with the German language. I am willing to admit that the majority of graduate students can do without Spanish and Italian, at least for the present. But for advanced work in any branch of knowledge, French is as indispensable as German.

The greatest practical advantage a student derives from the study of Romance languages lies in the fact that they introduce him into some of the greatest literatures the world has ever known. The Greek and Latin literatures may be superior to those of Italy, Spain and France in grand simplicity and beauty of form; in richness and loftiness of thought, they are not.

"Through literature we are likewise made acquainted with new civilizations. I need not here attempt to show the grandeur of the French civilization nor the indebtedness the world at large owes to it. The consensus of opinion of some of the most prominent men in Europe, taken recently by a French newspaper, tends to show that France

still holds her place at the head of the nations in the domain of intellectuality and in the field of art. Whatever worth the expression of these various opinions may have for the present, certain it is that for the last three centuries-and I might say ever since the twelfth century—it has furnished the world with the greatest number of literary artists of international fame, men whose names are household words in every civilized country, and that in this particular it has not lost one whit of its time-consecrated fame. There is no need to demonstrate the great advantage and pleasures derived from a first-hand acquaintance with such a literature. A translation is but a poor substitute for the original. especially in a literature where subtlety of thought, harmony of proportion, and beauty of expression hold such a preponderant place. A translation may be ever so well done, it always lacks the almost imponderable something, which constitutes the charm of a great work of art, and which is the essence of the genius of a race and a language as much as it is the essence of the particular genius that conceived the work. This something must be felt and cannot be analvsed: neither can it be rendered into a foreign language any more than an artificial perfume can render the perfume of a wild flower. An intimate understanding of the niceties of the language is necessary, and this we can communicate to the college student who is willing and desirous to acquire the foreign tongue. Experience has shown abundantly that students of average ability can and do reach that point in French, Spanish and Italian in the average college course. The initial difficulties of those languages are considerably less than those of Latin and Greek. The result is, that the learner is encouraged from the start, and can, at once, begin the reading of connected, interesting texts, and that his interest is kept up throughout the course. At once he becomes acquainted with a new civilization, not so remote as to preclude all hope of ever penetrating it except through laborious processes, but one which is akin to his own. Here he deals with ideas he can readily grasp, compare with those of his own civilization, judge and view in a critical spirit.

French literature is eminently free from narrowness and cant. It is a true mirror of French society in its various aspects. It reflects the French aspirations and ideals at the various stages of its history and therefore explains much that to the uninitiated is obscure and even incomprehensible.

Its contact cannot but broaden the mind, widen the sympathies, develop the aesthetic faculties; its very faults, which are numerous, will serve as a moral lesson and a warning.

Regarding the unique worth of English literature a teacher writes:

In teaching English literature I try to keep several objects constantly in mind: (1) I try to excite the interest of the student in every author of importance that we may have under consideration. (2) Through the interest thus excited the students begin to read and enjoy good literature, and (3) by means of reading with interest and enjoyment the student's conception of life and art is broadened and deepened, new and invigorating ideas are acquired, the vocabulary is enriched, and the student gradually becomes cultured. Above anything else I aim to make thinkers of my students; and I hold that the most powerful appeals to thought are made along the paths which excite the intense interest of the student. I am also constantly concerned about exactness and precision in thought and expression. I believe that nothing is so beneficial to character-growth as the habit of high thinking, and I believe there is no means so potent in the production of high thinking as the study of literary masterpieces. While I believe with Emerson that "Beauty is its own excuse for being," and with Keats that "A thing of beauty is a joy forever," I do not think that the beautiful, that is the artistic in the narrow sense, and per se, is

## WESTERN RESERVE UNIVERSITY

nportant thing to keep before the mind of the his reading of good literature. To me all literall art are worthless except in so far as they have are concerned with the life of man. It is the huliterature that I am most interested in and to which stantly directing the attention of my students. Toat all times "The proper study of mankind is man." lest thoughts, the highest aspirations, and the deepions of man in all ages and in all nations are enin the masterpieces of the world's great literatures. One the study of literature is the noblest of all studies teacher also writes respecting the advantages to be I from English composition:

he chief intellectual advantage to be derived from sh Composition is one common to all studies in lange, namely, the power to express thought with exactand possibly with force and elegance. But English position goes beyond translation and even the delicate rehension of the untranslatable in that it trains a stuto find fitting speech for his own thought. To do the student must undergo the discipline of clarifying leas, of getting them into proper relations, of massing effectively, and finally the labor of seeking the adeword and phrase to convey them. The knowledge discrimination required for these processes bring all nental faculties into activity.

Furthermore, his own attempts to apply principles of a composition, even when his work is a failure, quicken esthetic appreciation of masterpieces in literature. A ent said in conference, "I have grown reverent toward vriter of a good short story."

I hesitate to speak of any unique ethical advantage acgreg from English Composition; still I venture to hope through the daily theme based upon the writer's own

ception of what is significant in life, and larger sympathies growing out of a lively interest in all that meets the eye. The student's mind and character may both be enriched through these reactions between impression and expression.

In respect to the unique worth of tuition in history, four statements are submitted:

There are two remarks which I wish to make apropos of the unique value of History. One of the most striking tendencies in recent investigation is the constantly more careful application of the historical method. In the study of the different literatures, of economics, of sociology, for example, the historical method is used far more exactly and with richer results than was the case fifty years ago, save among the select few like the still earlier F. A. Wolf. The study of Biblical literature has also been renewed by the use of this method. An understanding of the method and some practice in its use would seem to be necessary. Secondly it is a commonplace, but it is nevertheless as true as ever, that the present must be interpreted largely through its origins in the past. A prolonged period of historical studies seems therefore to be an indispensable part of every sort of education.

A second statement outlines a series of advantages:

History gives one a broad acquaintance with the past. It attempts to trace the development of man, society and government. By enabling man better to understand the past, the study of history aids him in properly appreciating the great movements of to-day.

Hence the study of history is a training for good citizenship. The proper study of history is apt to make man less provincial, less tenacious of false analogies, a more diligent searcher after truth. History, especially American history, gives the student acquaintance with a body of facts that can be profitably used in studying and interpreting the

pressing problems of present politics. Civic information is especially valuable in a government like ours.

The proper study of history ought to produce, in some degree at least, what has been aptly called "historical-mindedness." It aims to promote the habit of looking, so far as possible, at all the facts impartially. Its object should be to judge an historical character not by twentieth century ideals but by the standards of his own age. Historical study cultivates the much-to-be-desired scientific attitude toward political facts. It ought to make one more sympathetic at the same time towards his fellowmen. The muse of history says to the student of John Lackland: "Put yourself in his place," and you will better understand his actions.

Again, closely connected with the last-mentioned point is my belief that the study of history ought to have some influence in training the judgment of the student. In history there are problems of probabilities. If a pupil is asked to pass judgment on the actions of men in the past may it not, to a slight extent at least, better fit him to pass judgment on the present? It ought, in any case, to promote the habit of pondering on the probable results of a given action, for life is in many respects a succession of choices. As history is not an exact science, this training which it gives is unlike that afforded by mathematics or the physical sciences.

In the study of history some attention should be paid to the development of what may be called the historical imagination. To properly interpret facts they must often be placed in an historical setting. To properly select the facts which one may have in mind so as to present a truthful picture requires careful use of the imagination. Figments of fancy must be excluded.

In the third statement it is said:—

The subject matter of history is generally recognized as man in action.

The facts of these activities derived from a multiplicity of sources must be organized to constitute history. This organized body of facts give the story of civilization. No man, I submit, can regard himself as cultured without some intimate acquaintance with this century-long record of the development of his kind.

History does more than gratify a natural curiosity about the past; it gives a new point of view for the present, constantly modifying and shaping the individual's conceptions of the significance of events of his own country and own times, enabling each generation to orient itself. More than this, history trains the student in right ways of thinking and investigating, and in the formation of sound judgment. Bishop Stubbs is quite to our point when he asserts that "the subject matter of modern historical inquiry has peculiar advantages for the training of the powers most constantly in exercise in a practical generation." All records are his rough ores. The lecture room and the library are his crucible. Here every college man must work his material up into his own golden grains of fact. The textbook, the authorities, the lecturer are set to guide him, no more.

One can, I believe, maintain that history is unique in its power to liberalize thought. It of necessity frees the mind from prejudice, narrowness, selfishness; it brushes away the cobwebs of tradition and superstition with which every unread man's brain is more or less clogged. Like travel it opens up new conditions of society with the certain result of awakening thought as well as broadening the horizon. This natural tendency of historical investigation to stimulate thought is of incalculable value in every man's training, and becomes the peculiar asset of the well trained college man.

Finally the ethical value of history is great. Guizot claimed that "History is a great school of truth, reason

and virtue." The annals of the past are crowded with pages of bigotry, ignorance, debauchery, crime past comprehension, but the noble sacrifices, the struggles for justice outweigh. This brighter, more hopeful outlook, this increased faith in man is no little acquisition for the college graduate.

The fourth and last statement regarding history refers largely to church history:

The study of history broadens the mind and enlarges the sympathies. It does for us as to time what travel does as to place. History shows how the present has come from the past. It explains the genesis of many usages and institutions that would otherwise seem arbitrary. The historian should, of all men, be charitable in his judgments. He should judge men by the light of the century in which they lived, not by that of his own. Historic investigation should render the student an optimist. It shows the slow but steady upward progress of humanity. It teaches that the world is becoming better.

The study of Church History is destined to contribute to the great cause of Christian unity by showing that the divisions of Christendom arise in large measure from ignorance, prejudice, and mistakes on the part of denominations. The sympathetic perusal of the lives of the heroes of the Church Universal should bring warring sects together in mutual love and admiration. Church History has all the advantages of General History, of which it is an integral part. It therefore rightly claims its place in the college curriculum. Indeed, it might still demand admission, if for no other reason than that it will teach the young people of our colleges the needlessness of perpetuating the sectarian divisions that are the scandal of our common Christianity.

In respect to the unique value of the teaching of the

sciences several members of the Faculties write. Regarding chemistry it is said:

Only one important advantage derived from the study of chemistry can fairly be called unique. It is only by the study of this science that we gain insight into the nature of matter, or into the structure of matter, or into the constitution of matter. This subject is both important and interesting. It has enlisted attention for at least twenty-three hundred years, and renewed and widespread interest has been felt in it during the last year.

When a competent man has spent a term or a year in the careful study of chemistry, he may possibly be able to sum up in a couple of pages that which he has learned of the nature of matter. Some are confident that by reading these two pages, with no further study, they will know of the structure of matter as well as the patient student. It is true that a couple of pages will convey some useful information. But the knowledge of the isthmus of Panama which one gains from a map is incomparably inferior to that of the engineer who made the map. Judgments as to routes and obstacles, founded on the map, are absurdly inferior to those founded on personal survey. So, judgments and opinions about the atomic theory or electrons or radioactivity, formed or absorbed by a man whose notions as to the structure of matter do not depend on a careful and patient study of chemistry, are not to be compared with those formed or accepted by him who has learned the sure basis of fact from which our theories as to the nature of matter are a sound and legitimate inference.

Another teacher of chemistry says:

The study of chemistry gives the inspiration of a new view of the truths of nature; it has special applications—as, for example, to medicine; it gives perhaps some insight as to methods of solving problems that arise, having a concrete subject matter; but all these apply to other subjects

as well. I fear my answer must be somewhat meagre, but the following points occur to me:

As Cleveland is a manufacturing center, with many industries closely related to chemistry, this subject has a greater vitality than under less favorable conditions. It makes what is going on around the student more intelligible. It tends to establish a relationship between science and the arts, the importance of which is proven by the success of the technical schools.

Chemistry brings students more nearly to the bottom of things—makes them realize that there must be a solid foundation, makes them more skeptical, I hope, of short cuts, substitutes, creation of something out of nothing. They will naturally extend their manner of viewing things concrete to things abstract, as, for example, in the business and political world.

Organic chemistry involves the ordering and classifying, the establishing of relations in such an emphatic way that it may be said to be a feature of this subject. With order everything is said to be simple, without order the subject is a maze.

With reference to women students. As the subject may be taught in Cleveland, it opens up to most of them an entirely new field of human activity, which in itself must be of value.

Further, I interpret the great tendency of women students toward the languages to be because the problems and lines of reasoning in these subjects have become familiar to them, and thus they are never called upon to follow unknown paths in their work. I should think the study of a science, and of these, chemistry might seem the best suited to the purpose, would give them an opportunity to see that the unknown is neither impossible nor even forbidding, but that on the contrary an excursion into the new country may lead to a rich reward.

A third teacher of the same subject of chemistry writes:

In the teaching of chemistry to undergraduate students there are to my mind few advantages unique to chemistry alone beyond the information they may acquire concerning a few natural laws and theoretical relations about the atomic constitution of matter.

There are, however, a number of advantages which pertain to the teaching of chemistry in common with the teaching of the allied sciences of physics and biology. These, I think, may be considered the subjects par excellence in which the student is trained in a certain orderliness of method and manipulation, in exact observation and in close inductive reasoning.

Of biology it is said:

In my opinion the following advantages are to be derived from the study of biology:

- I. The student acquires a deeper insight into, and therefore comes to have a greater interest for, the organic world. He observes the gradual transition from the lower to the higher forms of animal and vegetable life, and is impressed by the general laws, evolutionary and other, which govern all vital phenomena.
- 2. A comparative study of plants and animals is necessary for any adequate knowledge of the structure and physiology of the human body. Such knowledge is of direct advantage of every student, and is the basis of modern medicine.
- 3. Biology impresses upon the student, as no other subject can, the fact that there are higher processes, lying outside the range of the natural sciences, which can neither be studied by the microscope nor reduced to mathematical formulae.

Respecting geology it is written:

Geology is a sort of cap-stone of the other sciences, rather than a separate science of itself. It is concerned with the history of the earth, physical, chemical, biological, meteorological, etc. Because of this its study demands, on the part of the student, immediate and constant application of the various principles which he has encountered in the study of the other sciences. In this, together with the large perspective of the subject, lies its unique educational value.

Passing from the field of the sciences to Biblical literature, a teacher writes:

The Department of Biblical Literature, in its teaching of the original tongues of the Old and New Testaments, shares with the kindred departments of language, ancient and modern, in that training in the discriminating and fit use of words, which I conceive to be their greatest common contribution to a fine intellectual culture.

The special advantage in this connection is that it brings the student face to face with the Bible at first hand, and equips him for individual and independent work therein.

The other side of the work of the department which is concerned with Biblical history and interpretation, has a far wider scope and purpose. The special aims herein are to make clear the spiritual emphasis of the Divine Revelation, and its progressive character, and to exhibit and enforce its lofty ideals of life. It will be seen that the attainment of the first of these objects has in it great intellectual advantages, if thereby a point of view for the interpretation of scripture is gained, satisfactory to the mind as well as to the heart, while that of the second looks toward result in the quickening of moral and spiritual perceptions.

In regard to the unique value of the subject of philosophy three teachers write. One professor says:

Philosophy should enable the student to appreciate questions regarding method, knowledge and reality. It is

the only discipline that puts and answers these questions and thus it may be defined as the science of the sciences in so far as science is concerned with method, knowledge and reality. The effort to answer these questions is undoubtedly an exercise of the first order to the mind in its highest functions and at the same time furnishes a field of development for the intellectual and the moral sympathies. Undergraduate study of philosophy stimulates the philosophic spirit, broadens the field of interest and in this specializing age enables one to see more closely the relations and interdependencies of things. Philosophy is thus a sort of clearing house for human interest and in this, as much as in anything, lies its consequences and advantages.

A second also interprets as follows:

Replying to your inquiry I wish to say: I teach logic, psychology, philosophy proper (including the history of philosophy), ethics, and the history and psychology of education. In my opinion there is no unique advantage common to all these subjects, and I am doubtful whether most of them individually have any unique advantage apart altogether from the way in which they are taught. To speak of them in order.

Logic as it is ordinarily taught, or as it used to be taught, was supposed to cultivate one's general reasoning powers. But I am sure that most psychologists nowadays would agree that the most it could do in that direction is to impress upon students the ease with which words may mislead them, and teach them to avoid certain well-recognized fallacies in arguments. The inductive part of the work, however, often gives the student by way of examples a good many scientific facts that he would not get otherwise and some insight into scientific methods. Logic can be made something more than this—or a good deal less; but there one comes to the personality of the author or the teacher.

Psychology gives people useful knowledge that they cannot get elsewhere about themselves and other people; it satisfies a unique interest, and it is, of course, an admirable, almost indispensable, introduction to many other subjects. Fortunately, nowadays it has a very concrete content which makes it much more than the series of barren generalities and logomachies that is used often to be,

Philosophy proper gives young people a knowledge of the way in which the race has discussed its eternal problems and often helps individuals to solve problems that have worried them. On the other hand it sometimes suggests problems and difficulties at a rather critical period of life that in some cases would not otherwise have arisen at all, or at least until an individual's habits are formed. Plato thought that a person should not study philosophy before he was forty, and some people not at all. Philosophy is the mother of theology and also the "mother of heresies;" it often raises the devil, but in skillful and sympathetic hands it often lays him—at least for a while.

So with ethics. I once heard of a young woman who said ethics was the most useful study in her college: it had rid her of all sense of obligation. On the other hand it may be used quite as effectively to reinforce the sense of obligation. But here again it is a matter of personalities, not of subjects.

Education again varies tremendously in different hands. It may consist in a series of barren generalities such as one hears at the teachers' conventions where superintendents try to deduce school programs from the supposed nature of God. It may consist of a lot of bare and uninteresting, unco-ordinated and unsuggestive statements about the educational systems in a vast number of different tribes and nations, too general and inaccurate to show the effects of any of them; or it may take up the history in a much fresher way with a series of present-day problems to be answered by

its aid, as Quick does in his "Educational Reformers." It may work out elaborate details of school management, or elaborate plans for the teaching of any given subject. It may turn to child-study. It may wax sentimental and tell you that "Botany is living the life of the plant." It may devote itself to highly technical investigations of the effects of heredity, environment, and special forms of mental and moral training. One thing it surely can do in a college for women, as perhaps nothing else can,—give an intelligent knowledge of children, stimulate an interest in them, and perhaps make their care in after years seem to be something better than an unfortunate interruption of more highly intellectualized and worthier pursuits.

A third teacher says:

Psychology, Philosophy and its History:—the unique advantage of these subjects, which should be kept separate, seems to me to be as follows:

Psychology (intellectually): The light it is able to throw upon the most important and interesting elements in human nature. (Practically): It helps us to understand better how to deal with and influence the mind, especially that of the child.

Philosophy (intellectually): The fact that it deals, in the light of our present knowledge, with problems that have been of high interest to Europe's greatest thinkers uninterruptedly for the past twenty-five centuries. (Practically): The fact that it teaches the student the importance of principles and helps him to get successfully beyond the period in which every active mind is most liable to be skeptical toward religion and man's other ideals.

The History of Philosophy: Its importance as a chapter in the history of civilization.

To attempt to summarize these lengthy and numerous replies thus made would be only to repeat their main points,

so succinct are many of these statements. The variety and importance of the advantages which teachers attribute to the subjects which they teach are great. But the uniqueness of advantages is not so unique as each statement taken by itself would seem to indicate. Excellences that belong to philisophy are not remote from biology or from Greek; and excellences that are claimed for history may also be claimed for modern languages. Each subject has merits as a discipline which it shares with every other subject; and every subject, too, has peculiar merits in and of itself alone.

In continuation of the uniqueness or lack of uniqueness of the advantages possessed by certain courses, reference should be made to the combined course of study now established between Adelbert College and the Medical School, the Law School, and the Case School of Applied Science. It is evident that a certain degree of co-operative action, by and in behalf of students in the last year of their undergraduate course and the first of their professional course, is to be made. It is, of course, to be desired that American youth, preparing to become leaders in American life, should give themselves a long period of liberalizing study. The longer and the richer this period, the greater are usually the advantages conferred upon the community. Of course the period should not be so prolonged as to dull the edge of energy or to atrophy the desire for service. But in general the truth is that the more adequate the preparation for life, the more adequate will be the results of life. One, however, is met with quite a different condition in the interpretation made by American youth of life's opportunities. It is the condition of desiring to enter into one's life work at a very early age. In this desire parents usually sympathize. The ordinary American family is not able to maintain its sons for a prolonged course of education. To the demands of the community for workers of direct efficiency, rather than for workers of large relationships, the American youth is inclined to give heed. Many a boy is willing to spend six years in preparing himself for the practice of the law, who would not be willing to spend seven. The same principle obtains in reference to those who propose to become engineers or physicians. So strong is this tendency that one college of historic relationships, Wabash, has proposed to allow its men to spend the fourth year of the usual undergraduate course in the pursuit of professional studies, of either medicine or of law, in some institution offering these facilities for study. These students thus excused from academic residence, are yet retained under the academic control of the college itself.

Aside from any combination with a course of professional studies, the length of the undergraduate course has relation to the question of a degree, as well as importance in itself. In my judgment the question of the time of the undergraduate course has received altogether too much importance. Time has value in a course of education. it must also be borne in mind that Lord Bacon spoke the truth when he said "Time is no agent:" time is only a condition. The educational forces work in time, but time has no direct value in education. The elective principle in respect to the content of education has obtained a secure place. I think that the elective principle, as applied to time, also has much value. Certain students can accomplish results in three years, and possibly in two years, as rich as others can accomplish in four. The requiring of four years of study for all men is in peril of becoming a Procrustean couch. It would be well for some men who develop late, and who have ample means, to spend five years in the undergraduate course. The real advantages which a college course offers can be secured by some in two years, as well as by others in twice that time.

The fifth element in the consideration of the varying

degrees relates to the direct significance of the degree itself, as seen in the character of the graduate. Different studies produce different effects upon the mind, conscience, will and character of the men pursuing them. But all college studies should lead up to one comprehensive, consummate result. They should represent first, the scholar, second the thinker, and third the gentleman. The scholarly, thoughtful gentleman is worthy to receive the crown of the college, he who is not such is unworthy. It would be vain and presumptuous to say that any one study, or any one peculiar set of studies, creates the thinker, the scholar or the gentleman in a degree or to an extent above any other.

Because of the importance of the subject of a unity or a variety of degrees not only to the undergraduate colleges of this University, but also because of its wider relationships I have written at this length. I prefer, however, not to conclude the statement with a formal recommendation, but to submit the whole question in whatever form the Committee on Instruction in Adelbert College prefer for it to take.

Among the most significant movements of our time is the development of education by the State. This education applies to all orders and degrees. Up to, and including the high school, every State takes upon itself the duty of giving an education to its youth. Practically all of the newer States of the Union are also taking upon themselves the duty of giving a higher education, and even professional, to its citizens. The American communty has concluded that it is not willing to entrust the most important matter of education, in any form, to the uncertainty of individual or denominational initiative. Such a movement the world has never seen. Its significance it is impossible for us, being so near to it, fully to appreciate, or its value for the future to forecast.

It is also evident that the church is not willing to entrust the education of many of its sons and daughters to state-endowed and state-supported institutions. What is known as the denominational college has had, has, and will have a large place.

Between these two types of institutions, the state and the denominational, the colleges and schools bearing the name of Western Reserve hold an intermediate place. Western Reserve, in Adelbert College and its related schools, is free from all denominational control or affiliation. But the University is Christian. It represents those doctrines and teachings upon which Christianity rests, and of which the Bible is the foundation and expression. This free condition, however, of Western Reserve subjects it at once to certain difficulties and gives to it certain advantages. The University is subjected to the charge of not being religious. For, the Christian religion has, in perpetuating itself, divided itself into denominations. Many minds are hardly able to conceive of Christianity except in terms of a denomination. Wherever such a mind finds a college that is not denominational, it is inclined to interpret that college as being unchristian or irreligious. Such an impression, of course. cannot but work harm. On the other hand, the freedom from denominational control represents an opportunity for emphasis upon the cardinal verities of the Christian faith. These verities may exist apart from denominational interpretation and they may be applied without sectarian zeal. Such an opportunity this University should be most eager to avail itself of, not only for the good that may be thus wrought, but also for enforcing the great lessons of duty which usually are enforced by denominational partisanship.

For securing this purpose, as well as for securing other important purposes, the facilities offered for worship and for Christian instruction afforded through the Florence Harkness Memorial building have already shown themselves to be of great worth. If a place of worship, approaching in dignity and impressiveness to this building, could be erected for the daily worship of the students of Adelbert College, equally great advantages would result. The present place of assemblage is simply a large lecture room. It has few of the elements which quicken the soul of man to the worship of God. A university, through its undergraduate colleges, of the character of Western Reserve, Christian without being denominational, must take advantage of every opportunity for ministering to the whole character through the religious sensibilities and activities.

The present year apparently marks the close of the direct ownership by the Boards of the buildings and grounds at Hudson, where the Western Reserve College was established in the year 1826. Since the college was moved to Cleveland, in 1882, this property has, for a larger share of the time, been used as an academy. The property has been provisionally transferred to The Ohio Yearly Meeting of Friends. This society proposes to use the property for the establishment of a preparatory school. The grant by this Board to the Society is conditional. In case the Yearly Meeting of Friends maintains for ten successive school years a first-class preparatory school, the exclusive right and title to the property is to be vested in this Society.

This action has been taken by members of this Board, appointed for the purpose of carrying on negotiations, under the advice and counsel of a committee of the citizens of Hudson. This committee, of which Mr. W. I. Chamberlain was chairman, under date of March 11th of the current year, wrote, saying:

"We most earnestly desire and urge you to accept the proposition therein [statement of Friends] contained, in order that the Friends may at once proceed to raise the needed funds and open the school in September, 1904. To

us this proposition seems the best, indeed at present the only, means by which the Adelbert Trustees can discharge to the citizens of Hudson and vicinity any and all obligation, moral and financial, to maintain at Hudson a secondary school of Christian Classical learning; and we declare as a committee representing the citizens of Hudson and vicinity our belief such acceptance on your part will do more than anything else now within your power to heal in our midst the feeling of profound disappointment and even of bitterness at the loss of the Western Reserve Academy. Further, we regard a ten years' successful continuance of the proposed school, with the large expenditures proposed and necessary, as sufficient guarantee, to us, at least of its permanence."

The relation of the Boards to the use of the property in Hudson in the twenty-two years that have passed since the College was moved to Cleveland have been determined more by conditions over which the Board had no control than by the Board itself. These conditions are largely summed up in the fact of the great improvement of the high schools of northern Ohio. The time was when most of the schools of northern Ohio did not fit their students for college. The time has come when most of the high schools of this part of the State, and of all parts, and indeed of all States of the Union, do fit their students for college. The need, therefore, of a school privately endowed has vastly lessened. The Board, therefore, has been the servant of conditions which it neither created nor was able to control.

This subjection has been in no small part akin to the subjection in which the Board was placed when, about a quarter of a century ago, the suggestion was made in reference to the moving of the College to Cleveland. The growth of urban life, the larger facilities afforded through the urban location of a college, the fact that endowment is

usually, although not entirely, secured from residents of cities, the assurance that if the college at Hudson were not removed to Cleveland, a college would be established at Cleveland, which would attract to at least some degree the support which had been given to the college at Hudson, embodied serious and significant conditions. These conditions came to possess in the opinion of some gentlemen, the force of an imperative obligation. Of the members of the Board of the year 1882, only three members remain,—William H. Upson, John Hay, and Liberty E. Holden. Dr. H. C. Haydn had been a member, but was not a member in the year of 1882. Those who are to-day their successors may gratefully commend the wisdom under which, not without difficulties of both heart and mind, they acted in making the removal to Cleveland.

In the twelve years that have elapsed since the foundation of the Graduate School, not less than one hundred and fifty students have been members of it. These students, both men and women, are now engaged largely in teaching. They are found in schools and colleges of many States. Although the number has not in any year been large, yet in the more than a decade the aggregate becomes somewhat impressive. Aside, too, from the numbers, the presence of graduate students in the University represents an influence promotive of the highest scholastic ideals and methods.

Most graduate schools are endowed with a large number of scholarships or fellowships. Such prizes or rewards tend to attract good students. Most students who enter the Graduate School of Western Reserve University are not thus solicited. For the sake of the Graduate School, and for the sake of the community as well, several scholarships which would cover the amount of the tuition fee would prove to be of great worth.

## WESTERN RESERVE UNIVERSITY

The Law School closes its most prosperous year. Among the impressive effects of the Law School is the excellent preliminary training which the studies represent. Although the requirements for admission include only the requirements necessary for entering the undergraduate college, yet about half the students have received an academic degree, and the remainder have passed at least one year in college. The proportions and facts for the year now closing are as follows:

College Graduates  College Seniors  Students at College from 1 to 3 years  Graduates of High Schools and Academys  Special Students	10 20 28		
Total	110		
Colleges represented and number of graduates:			
Adelbert	14		
Oberlin	5		
Mt. Union	3		
Ohio Wesleyan	3		
Denison	3		
Yale			
Kenyon			
St. Gregory's Seminary	2		
Bucknell			
Bethany			
Allegheny			
Princeton			
Harvard			
Richmond			
Wilmington			
Wooster			
Total Colleges 16	42		

olleges at which students took partial work	:
Adelbert	17
Mt. Union	3
Baldwin University	I
Denison	
Oberlin	I
Kenyon	1
University of Chicago	I
University of Tennessee	1
Ohio State University	
Yale	
University of Pennsylvania	
Jesuit College	
Total Colleges 12	30

The present is the eleventh commencement of the Dental School. The Senior class fills out the number of two hundred and seventy-five graduates. These men are now engaged in practicing the art of dentistry in many States, as well as in at least two foreign countries. In competition for an important place in the practice of dentistry in Berlin a graduate of this school was successful. Among his competitors were graduates of the other best schools. The worth of the school to the community has already proved to be great. The alumni themselves are enthusiastic supporters.

But notwithstanding these conditions and advantages the School finds itself at the close of this year in serious difficulty. The School has been dependent for its income upon the fees of students in attendance. The decline in the number of students has so diminished the income that it seems impossible upon the present basis to maintain a first-rate agency for the training of dentists. By reason of these conditions a reorganization of the School is apparently inevitable. The members of the Faculty are deeply interested in the proposed reorganization. What will be the result is, at the present writing, unknown. It is to be hoped that

under some form this School, which has already proved itself a minister to humanity in important relationships, may be continued.

The report of the Dean of the Medical School gives abundant ground for cheer in the solution of the problem of making that School of the highest order of excellence. The pecuniary burden laid upon, or the pecuniary privileges open to, members of the Board of Trust in this transformation are great. It is apparent that the special exigency will continue for one of two years longer. But the members of the Board can be assured that the results are more than adequate to the wisdom and the sacrifice which they have generously given to this department of the University.

The chief change in the administration of affairs in the College for Women relates to the establishment of the morning of each Monday as a holiday. For a long time the members of the Faculty have appreciated the fact that it would be well, if possible, to grant the students a half or a full holiday in addition to or in conjunction with the afternoon of Saturday. Therefore, following a debate by the members of the Faculty, there was issued last December the following circular to the students:

"The faculty of the College has appointed a committee to report upon the advisability of placing all the College exercises on five days of the week, leaving one day besides Sunday free from such engagements. This committee has requested me to ask your assistance in determining the practical question how such a change would affect your well-being as a student. Will you kindly talk the matter over with your parents and send me a statement before the close of the vacation?

If such a change were made it would not mean any decrease in the amount of work, but simply a rearrangement

of the hours at which the recitations, lectures, or laboratory exercises should be held. The amount of work now required is similar to that required in other colleges of the same grade. Any rearrangement, looking toward the freeing of one day from exercises, will necessarily transfer some exercises now given in the morning to the earlier hours of the afternoon. It would doubtless be possible to close the afternoon recitations (not laboratory exercises) at half-past three. Such a shifting of recitations into the afternoon would make it necessary for many to lunch at the College, unless their homes were in the neighborhood. During the winter students having recitations from halfpast two until half-past three might not be able to reach home until after dark. These are some of the obstacles in the way of a change. They arise in a measure from the necessity under a system of elective studies of distributing the work as widely as possible so that the students shall not be restricted in their choices by the occurrence of two or three desired courses at the same hours.

The advantages of the proposed change are more obvious: the need of a day other than Sunday for relaxation from hard work, the decrease in the temptation to work on Sunday."

To this circular 132 replies were received. As a result the Faculty voted to free the morning of Monday from college exercises. This freedom was effected by the transfer of the exercises of the first three hours of the morning of Monday to the afternoon. The exercises usually held in the last hour of Monday were scattered during the week. At the present time the testimony is strongly, although not unanimously, in favor of the continuance of the system. The schedule of exercises for the next half year at least is made out upon this basis.

The administration of the two halls of residence for the members of the College for Women, Guilford House and Haydn Hall, is committed to a body known as the Advisory Council. The Advisory Council, in turn, commits this duty to a special body of its own members. The administration of these halls calls for the highest elements of character, intelligence and efficiency. To their administration not a few women give up much time and strength. The money received and spent in their administration represents about \$17,000 a year. The grateful appreciation of the Boards of Trust for the service thus rendered, as graciously as it is efficiently, is, I know, deeply felt.

Every room in these two halls has been occupied during the present year. If another hall for residence were opened, there is reason to believe it, too, yould be filled with students during the next year. Apparently the growth of the College for Women is to be limited only by the giving of good homes to its students.

Preparations are now under way for the opening of the Library School of the University with the beginning of the next academic year. The place for the time being will be the Adelbert Dormitory. The first two floors of the south entry of that building are to be specially fitted up for its occupancy. A separate entrance at the south end will be provided. The opinion is general that the opportunity offered for the development of a first-rate school for the training of librarians is most promising.

The question of the facilities offered to students for securing proper lodging and food is one of the most serious questions in university administration. From the beginning of academic history in this country the colleges have usually assumed a certain responsibility for both lodging and food. The dormitory has been the more common method of the assumption of the responsibility for lodging.

For the students of the Medical School and Dental School this question is of importance more serious than to the students in the colleges located in the East End. Every house in which a student lodges should be physically and morally wholesome. It should, beyond these simple elements of physical and moral health, be as homelike as is possible.

The securing of proper rooms, under proper conditions, for the students of the two professional schools situated in the midst of Cleveland is extremely difficult. Most students are poor in purse. The rooms that some of them occupy in consequence of limited means are far from sanitary. Such rooms are probably less desirable than those occupied by most clerks and other workers, because these men are earning money. The student is engaged usually in only spending.

The difficulty of finding proper rooms for students in the professional schools situated in the midst of the city is greater than the difficulty of finding proper food, because many restaurants are open to their choice. The variety of food of which they partake may not be good for their health, but it does tend to relieve a monotony which obtains in most boarding-houses.

For Adelbert College and the professional schools situated in the East End the difficulty of finding proper rooms is not so great as the difficulty of finding proper boarding-places. Adelbert College has for many years leased that part of its dormitory building known as the refectory. The lessee has usually occupied the building for the sake of providing board for students. In the last dozen years some six persons have leased this building and have for a time set forth good provision for students. But after a time, with hardly an exception, the number of students desiring to avail themselves of the opportunity has grown so small as to cause a loss to the one conducting the house.

At the present time students of the Law School and Adelbert College board in restaurants, private houses, and in small clubs of their own. Students usually prefer to make arrangements for their own boarding. Of the board which they themselves provide they are inclined to be less critical than of the board set forth even indirectly by the College.

Through such a division of students among many boarding places a certain comradery is lost. This comradery is of great value. If the College could directly or indirectly maintain a good boarding-house, I am sure the results would make for the happiness and enrichment of the student life. Such a provision could not be made without at least some endowment. Even if such endowment were offered the arrangement would be beset with perils. The first rebellion of students in any American college against the authorities was a rebellion against Mr. and Mrs. Eaton, the first master and his wife, of Harvard College. Bread-and-butter riots punctuate academic history. well for the College not to have more points of antagonism with its students than the conditions make necessary. Simplicity of relationship is to be consulted. But if under some form a general boarding-house for students, partially endowed, could be properly conducted, the results would be remunerative in character.

But whatever advantages may belong to the setting forth of good board to the students who live in the East End, there can be no question that if a proper hall for the residence of the medical students could be provided great good would result. Such a house should be plain, convenient, and situated not far from the Medical School or Lakeside Hospital. Such a building might pay a low rate of interest on the investment; but philanthropy would represent the primary motive in its erection and administration.

Soon after the death of Senator Hanna several citizens of Cleveland, desiring to honor his memory and to serve the community through the University, associated themselves in a corporation to found a chair of political science. The gentlemen selected as trustees are: John Hay, James W. Stewart, Myron T. Herrick, Charles Dick, Winfield T. Durbin, Frederick A. Henry, John S. Rutledge, John Mitchell, Elmer Dover, Liberty E. Holden, Jerome B. Zerbe, Henry R. Hatch, William R. Hopkins, Thomas K. Dissette, Frank H. Haserot, Frank M. Chandler, Samuel W. Meek, William G. Oswald, Harris Creech, Frank M. Atterholt.

The endeavor has received the approval of many men whose approval is of the greatest worth. The officers of the corporation have indicated the wish to raise \$150,000. Of the purpose of the foundation every trustee must approve, and for the endeavor feel only gratitude.

In addition to the Alumni Associations which exist in the states of Illinois, Indiana, in Columbus and Cincinnati, Pittsburg, New York, Washington and Boston, an association has, in the last year been formed in Cleveland. In Cleveland or its neighborhood reside about fourteen hundred graduates and former students of the University. The Association which was here formed, in common with other Associations, represents one of the precious assets of the institution.

The accompanying reports of Deans and of other officers I commend to your attention.

I beg to remain, with great respect,

Very truly yours,

CHARLES F. THWING, President.

Cleveland, 14 June, 1904.

### REPORT OF THE DEAN OF ADELBERT COLLEGE.

At the beginning of the present year, Professor Fuller, under the pressure of ill-health, was obliged to resign his position as Dean of the college, a position which had been administered by him with signal success since 1894. This necessitated some rearrangement of the duties of the office, and the portion properly belonging to the Dean was separated from those of the Registrar and Bursar, with which it had been connected for some years past. So excellent had been the organization of this work in the hands of Dr. Fuller that little time was expended in adjustment to the new conditions, and the year has gone smoothly, a result due largely to the willing and cordial spirit shown by the students.

The various courses given during the past year, with the number of students attending each, are shown in the following tables:

FIRST	HALF-YEAR.

Course.	No.	Subject.	Seniora	Juniors	Sopho- mores.	Fresh- men.	Special	Total.
Bible	1	Life of Christ				67		67
Biology	2	Invertebrate Anatomy	2					2
"	3	Vertebrate Anatomy		5				5
"	6	Physiology	2	2	1			5
Chemistry	1	Inorganic: Non-Metals		4	19	7		80
"	2	Inorganic	2	1	6	88	1	48
"	3	Inorganic Preparations		4				4
"	6	Organic		6	8		1	15
"	7	Quantitative					2	2
"	8	Physiological		2			1	8
Economics	1	Elements	8	19	25	1	4	52
"	6	Economic History	5	2			1	8
"	8	Political Thought	10	1	٠			11
English	1	Rhetoric				67	8	70
"	2	Themes		5	46	2	4	57
"	4	Daily Themes	5	5	1		2	18
"	6	Forensics		2	1		1	4
"	10	Chaucer and Spenser		3	2		1	B

### FIRST HALF-YEAR.

			E	2	4		÷	
Course.	No.	Subject.	Seniora	Juniora	Sopho- mores.	Fresh- men.	Special	Total
			ð	ج	S E	£ E	g	-
English	12	Milton	• •	4	• •	• •	••	4
"	18	Collins to Keats	4	4	3	1	2	14
	14	Tennyson	13	3	• •	••	1	17
French	1	Elementary	2	10	15	12	••	39
"	8	Nineteenth Century Texts.	7	9	12	• •	• •	28
	80y		8	• •	• •	• •	• •	3
Geology	1	Mineralogy	3	2	• •	••	•:	5
	8	Lithology	9	16	1	• •	5	31
	5	Physiography	4	2	3	1	• •	10
German	1	Elementary	•:	• •	8	14	1	18
"	2	Selected Masterpieces	1	٠.	••	9	• :	10
	8	Second Year	1	2	18	6	1	28
"	4	Author Course	2	3	13		• :	17
••••	12	Modern Fiction	••	2	2	1	1	6
Greek	1	Homer	• •	• •	•:	18	• •	18
	8	The Drama	• •	• •	7	• •	• •	7
• • • • • •	4	Plato	1	• •	••	• • •	• •	1
History	1	Middle Ages	1	2	17	9	9	38
	6	American Colonies	2	5	8	• •	1	11
• • • • •	8	French Revolution	19	11	1	1	8	85
	14	English Constitution	4	2	••	••	3	8
Church Hist.	4	Modern	8	1	2	••	• •	11
Latin	1	Livy or Cicero	2	• •	4	57	1	64
"	8	Horace	• •	• •	9	• •	• •	9
Mathematics	1	Trigonometry	• •	• •	• •	64	5	69
44	4	Algebra	٠.	4	24	• •	2	30
	8	Calculus	8	• •	• •	• •	1	9
Philosophy	1	Psychology	8	28	21	1	1	54
	2	Anthropology	9	18	8	1	• •	81
"	5	Ethics	11	• •	• •	• •	2	18
"	6	History	4	• •	• •	••	1	5
	7b		12	• •	• •	• •	5	17
"	10	Psychology	2	• •	• •	••	• •	2
Physics		Mechanics, Sound, Heat	• •	• •	••	28	5	33
• • • • • • • • • • • • • • • • • • • •	1	Mechanics, Sound, Heat	1	6	6	1	1	15
• • • • • • • • • • • • • • • • • • • •	3	Physical Optics	• •	1	• •	••	• •	1
"	5	Electrical Theory	1	1	• •	• •	1	8
"	9	Descriptive	2	• •	• •	• •		2
Spanish	••		8	8	4	• •	••	10

### SECOND HALF-YEAR.

Course.	No.	Subject.	Seniors	Juniors	Sopho- mores.	Fresh- men.	Special.	Total.
Astronomy	1	Descriptive	11	6	7		1	25
Biology	1	Elementary	1	5	14	6	4	30
"	7	Vertebrate Embryology		6	1			7
"	10	Botany	4	4	1	1		10
Chemistry	2	Inorganic	2		2	24		28
"	5	Qualitative Analysis	1	9	1			11
"	6	Organic	1	4	7			12
"	7	Quantitative Analysis	2					2
"	9	Physical	1	2				3
Economics	2			4	8			7
"	4	Public Finance	8	6	6		1	16
"	7	Modern Industry	8	13	6	••	8	80
English	1	Rhetoric			1	63	5	69
• • • • • • • • • • • • • • • • • • • •	2	Theme Writing	4	6	40	. 2		52
"	4	Daily Themes		5	1			6
"	5	Daily Themes	4	8		1	1	9
"	17	English Prose	1	1	16	1		19
"	15	American Literature	4	4	1	`		9
"	19	Shakespeare	7	9	1		1	18
French	2	Elementary	2	7	18	11	1	84
"	4	Literature of 17th Century.	2		10			12
Geology	4	Structural	7	7			2	16
German	1	Elementary			2	18	2	17
"	2	Selected Masterpieces	٠٠.			9		9
"	8	Second Year	1	1	16	7	2	27
"	4	Author Course	2		5	1		8
"	12	Modern Fiction		2	2	1	1	6
Greek	2	Attic Orators				19		19
"	4	Plato			2		1	3
Beginning								
Greek		Elementary			1			1
History	1	Middle Ages		1	5	<b>2</b> 5		31
"	2	Germany	1	2	7	4	2	16
"	7	United States	1	10	11	8	4	29
66	9	Europe in 19th Century	15	6		2	2	25
"	18	England in 19th Century	4	1	1		8	9
Latin	2	Plautus	ī	1	3	58	1	64
"	4	Tacitus, Juvenal			8			8
	_	, ,			_			-

#### SECOND HALF-YEAR.

Course.	Xo.	Subject.	Rentora	Juniors	Ropho- mores.	Presh. men.	Special.	Total.
<b>Mathematics</b>	2	Analytic Geometry					5	67
**	6	Trigonometry, Surveying		4	11		3	18
**	7	Calculus		2	11		2	15
44	11	Differential Equations		3				3
**	14	Solid Analytic Geometry	1					1
Philosophy	3	Logic	1	10	27	1	5	45
"	4	Introduction	5	22	6	1	4	<b>3</b> 8
	7b	Social Institutions	24	12			1	37
Physics	2	Electricity, Light		7	7	6	2	22
	6	Electrical Theory	2				1	3
		Mechanical Drawing						8
		Manipulation						
		Elementary						6

The arrangement with the Case School of Applied Science, described in the last report of the President, has been put into operation during the present year. Twelve members of the Freshman class have entered college with the intention of pursuing this combined course, and seven men from the upper classes are directing their work with the same end in view.

The tendency of the age, to shorten the time given to general education, has not hitherto shown itself in an important way at Adelbert College. The number of students who, having some advanced courses to their credit, are endeavoring by extra work to meet our requirements for graduation in less than four years has been, and is at present, small, but the number of those who are taking advantage of the combined courses with professional schools is now more than fifteen per cent of all our students, and is apparently increasing. It is probable that some have been attracted by these opportunities who would otherwise have gone directly from the high school to the professional school, unwilling or unable to spend so long a time in their

preparation for life as the separate college and professional work would demand. For such men the period of general education has not been shortened, but lengthened, and gain on this side may perhaps offset losses on the other.

While it is yet too early to draw conclusions as to the effect of such short cuts on the general scholarship of the men who take them, an examination of the courses of the few who have already made the trial is reassuring. The records of those who have entered the Medical College since the arrangement was made show the following results. (Such students take two-fifths of the work of their senior year at Adelbert College, and three-fifths at the Medical College).

The quality of the work done in the Senior year at Adelbert, as shown by the records of seven years, was in no case worse, and in most cases better, than in the three preceding years of the college course.

The range of electives chosen was as wide as among students who had no professional work. There was no apparent tendency to choose "snap" courses, or those which are thought to involve less work than others. Some of the courses taken were among the most difficult given in the college.

As far as these records go, they indicate that a definite purpose in life is not only helpful to a student in his professional courses, but that, at this stage of his development, it is a steadying influence in any work upon which he may enter.

Respectfully submitted,

FRANK P. WHITMAN, Dean.

## REPORT OF THE SECRETARY OF THE FACULTY OF ADELBERT COLLEGE.

There have been twelve meetings of the entire Faculty and eight of the permanent officers. The actions of the latter body, relating for the most part to recommendations for appointment on the staff of instruction, have been already transmitted to the Board. In addition to this, the permanent officers have also effected a change in the business of the Dean's office, creating a new officer, the Registrar, and separating his duties from those of the Dean.

Your attention was called in the last report to the fact that the development of the committee system had lightened the labors of the general Faculty, and rendered the volume of business which must be brought before this body comparatively small. During the past year, almost nothing but ordinary routine matters have been taken up. The plan of having a series of University lectures was carried out with reasonable success. It was voted that the introduction of instruction in elementary Greek was "not undesirable," provided it could be done without injury to existing interests. Adelbert College has also joined the College Entrance Examination Board, more as an expression of good will, than for any practical purpose, as all our students are admitted on certificate, and entrance examinations are unfortunately unknown. Respectfully submitted,

> Samuel Ball Platner, Secretary.

# REPORT OF THE REGISTRAR OF THE COLLEGE FOR WOMEN.

The following table shows the courses as taken in the year 1903-1904:

FIRST HALF-YEAR.									
Course.	Subject. Instruct	o <b>r.</b>	Seniors.	Juniors.	Sophomores	Freshmen.	Specials.	Total.	Grand Total.
Anthropology . 1	Prof. Curt	is :	27	9	1		1	88	
	Theory of Society Prof. Curt	is	7	2	1			10	48
Bible 1	Life of ChristPres. Thw	ing .		1	8	57	4	65	
" 8	The Acts of the Apostles, Assoc. Prof. He	aydn			50		1	60	
. 4	Old TestamentAssoc. Prof. H	aydn	4	82	8		1	40	165
Biology 6	Physiology	88	1	1				2	
Chemistry 1	Non-Metallic Blements. Assoc. Prof. Gra		8	17	22	••		42	
. 2	Inorganic	ener	8	1	4			8	
4	Physiological Ass't Prof. To	ower	2			••		2	
" 5	Organic Assoc. Prof. Gru	ener	2	1	1			4	56
Economics 1	Blements Dr. Young		6	7	1		1	15	
English 1	Principles of Composition Miss Myer	·			1	58	7	61	
8	Daily Themes Miss Myer	·	1	1	4	2	8	11	
" 5	Themes	·	2					2	
" 8	Old EnglishProf. Huln	ne	1	1	1	••		8	
18	ShakespeareProf. Huln	ne	8	2		1	1	7	
15	Bng. Literary Criticism Prof. Huln		8	8	45	2	9	62	
" 16	ClassicismProf. Hulm	ne 2	27	19	4		8	58	199
Geology 3	Dynamic Prof. Cush	ing.	7	7	5			19	
German 1	Elementary, 1st year Ass't Prof. M	leyer	1	2	8	10	4	25	
" 8	Blementary, 2nd year Ass't Prof. M		4	3	17	6	8	38	
" 5 a	German Literature Ass't Prof. M	leyer	8	8	7	1		19	
" 5 ხ	" M. L. Freshmen Prof. Dec	ering			5	18	4	27	
7	Goethe Prof. Deeri	ng	в	2	11	7	4	30	
" 9	Paust	ng	8	10	9		2	27	
" 18	Old Germanic Myths Prof. Deer	ing	8					8	164
Greek 1	Homer Dr. Bill				1	7		8	_
" 3	Drama				4		••	4	
" 6	Historians		2	4		••		6	
" 6a	Elementary Mr. Leutne	er	4	2		••		6	24
	- · · · · · · · · · · · · · · · · · · ·								

### FIRST HALF-YEAR.

Course.	Subject. Instructor.	Seniors.	Juniors.	Sophomores	Preshmen.	Specials.	Total.	Grand Total.
History l a, b	Middle Ages Dr. Robertson		2	<b>3</b> 5	11	6	54	
• 8	Modern Europe	. 2	1	13		2	18	
" 5	American Colonial Dr. Robertson	. 8	4	4	1	3	20	
7	Prench Revolution Prof. Bourne.	. 8	17	2		7	34	
11	Puritan Revolution Prof. Bourne .	. 11	3			2	16	
13	Life in Middle Ages Mr. Severance	. 3	7	6		1	17	
" 17	Roman	. 5	1				6	165
Latinla.b	LivyProf. Perkins.			2	54	1	57	
" 8 a, b	Horace, Odes and Epodes Prof. Perkins.		1	47			48	
6	Tacitus and Suetonius Prof. Perkins.	. 21	14	7			42	147
Math l a, b	Trigonometry			5	50	2	57	
" 5	Analytical Geometry Prof. Palmie		2	8			10	
. 7	Integral Calculus Prof. Palmié .	. 8	2			•	5	72
Music	Hist. of Music and Harmony Mr. Clemens .			1		8	7	
Philosophy 2 a, b	<del>_</del>			17		4	51	
., 8	Ethics Prof. Aikins		1				22	73
Physics l a	GeneralProf. Whitma		-		13		15	
" 1				4			8	
" 8	Physical OpticsProf. Whitma				••	••	ĭ	
10	Descriptive		••	26		••	26	50
	Physiology and Hygiene Dr. Towslee				58	2	55	
Romance Langua			••	••		_	~	
French	<del>-</del>	Ŧ 2	6	20	84	8	70	
" 8	• • • • • • • • • • • • • • • • • • • •		•	30	8	7	•••	
" 9	Modern Novels		4	8	J	•	17	
•	Mr. Borgerho		i	2	••	8		148
			-	_	••	_	•	

### WESTERN RESERVE UNIVERSITY

### SECOND HALF-YEAR.

Course.	Subject. In	nstructor.	Seniors.	Juniors.	Sophomores	Preshmen.	Specials.	Total.	Grand Total.
Astronomy	Pre		2	5	6	••	1	14	
• Bible 2	Life of ChristAssoc. I	Prof. Haydn			1	53	2	56	
" 5	Old TestamentAssoc. I	Prof. Haydn	5	82	6		1	44	100
Bibliography		. Severance.	2	5	٠.,		2	9	
Biology 1	GeneralDr.	Prentiss		4	87		1	42	
. 7	EmbryologyDr.	Prentiss	1				1	2	
" 10	BotanyMr				1	••		1	45
Chemistry 8	Metals Assoc. P		4	8	12			19	
" 7	Qualitative AnalysisPro		2	ī				8	22
Economics 6	Political ScienceDr.	•	7	2	ï	• •	ï	11	_
English 2	Composition Mi		·		8	54	4	61	
" 4	Themes Mis		ï	2	2	ï	8	9	
" 7a			5		-	•	•	5	
" ii	Chaucer Pro		8	9	5	2	••	24	
" 14			12	8	8	_	··	24	
" 17	Rom'tic Movem't in 18th Cent Pro		8	12	80	5	_	50	
" 18	American Literature Pro		8	8	2	1			190
	Structural and Historical Pro		5	7	_	1	_	12	IBO
Geology 4	PhysiographyPro		-	8	• •	••	••		40
			18	-	14		•:	80	42
German 2	Blementary		1	2	8	10	5	26	
-	Modern TextsAss't		1	2	18	6	1	23	
од		•	7	6	5	1	•:	19	
66	Classic	•	• •	8	7	19	8	82	
6	19th CenturyPro		4	1	12	10	1	28	
10	LessingPro		1	5	6	••	••	12	
	History German Literature Pro	_	5	4	4	1	••	14	154
Greek A	BlementaryMr		8	2	••	••	••	5	
2	Attic Orators Mr		••	••	4	6	1	11	
" 4	Plato, Apology, CritoDr.		••	1	8	••	••	4	
" 7	ThucydidesDr.		••	4	••	••	••	4	24
History 1	Middle AgesDr.		••	••	2	12	1	15	
" 2	FrancePro		1	6	16	4	7	84	
" 4	Germany -1494-1786 Dr.		••	••	5	••	8	8	
6	United StatesDr.		7	7	20	••	8	87	
" 8	Europe in the 19th CenturyPro		10	15	8	••	8	81	
" 9	Political Institutions in U. SDr.		••	5	4	••	8	12	
12	Historical Research Pro		79	4	••			18	150
Latin 2	Cicero de Senectute, Plautus Pro			••	2	55		57	
" 8	LucretiusPro			12	2		••	14	
" 9	CatullusPro			••	<b>8</b> 5	••	••	85	
" 15	Teacher's Training Course Pro		26	1	••	••	••	27	138
Math 2	AlgebraPro		••		4	<b>52</b>	5	61	
" 6	Differential CalculusPro		1	1	5		••	7	
" B	Differential EquationsPro		4	2				6	74
Music 2	History and HarmonyMr	. Clemeus	2	1	1	••	2	6	

#### SECOND HALF-YEAR.

Course.	Subject. Instructor.	Beniors.	Juniors.	Sophomores.	Freshmen.	Specials.	Total.	Grand Total.
Philosophy 1	LogicProf. Aikins.		1	20	2		25	
" 4	Introdu'n to Philosophy Ass't Prof. Marvi	n 9	15	4			28	
" 5	History of Philosophy Prof. Aikins	. 2	1				3	
" 8 and 10	Psychology in Education Prof. Aikins	. 9	10	4		2	25	79
Physics 2	Light, Blectricity, Magnetism, Mr. Mills	. 1		2	2		5	
Romance Language	ges.							
French 2 a, b	Elementary Mr. Borgerho	ff 2	7	19	<b>3</b> 5	7	70	
" 4 a, b	Mr. Borgerho	e 2	9	21	6	5	43	
" 10	Mr. Borgerho	ef 8	3	8			14	
Spanish 2	Mr. Borgerho	ff 1	1	2			4	131
Sociology	Prof. Curtis.	27	10	2		1	40	

### Respectfully submitted,

BERTHA L. TORREY,
Registrar.

## REPORT OF THE DEAN OF THE GRADUATE SCHOOL.

During the current year twenty-one students, nine women and twelve men, have been enrolled in the Graduate School. Five of these are graduates of Adelbert College and six of the College for Women, while nine other institutions are also represented. Of these students one has returned for a fourth and one for a third year of study, five are finishing their second year, and fourteen began their work as new students last September. Thirty-one instructors have offered one hundred and twenty courses of study. There are five candidates for the A. M. degree at the approaching commencement.

In the different departments instruction has been given as follows: In Biology to one student, in Chemistry to one, in Economics to three, in English to five, in German to six, in History to eight, in Mathematics to one, in Philosophy to three, in Physics to two, in Spanish to two.

It is worthy of note that this year ten students, a little less than half of the total enrollment, are teachers in the schools of the city and vicinity. They still continue their work as teachers and come to us for advanced courses in their chosen subjects. Through these students the influence of the University upon the secondary schools is very direct and should prove very strong. It ought to be evident in a year or two in increased numbers coming into our undergraduate departments from these schools.

R. W. DEERING. Dean.

### REPORT OF THE DEAN OF THE MEDICAL COLLEGE.

The total number of students in attendance in the Medical School during the current year has been as follows:

Fourth year class	. 39
Third year class	. 20
Second year class	
First year class	
Special	
Total	88

Of the eighty-two men regularly enrolled forty, or 48.78 per cent., have college degrees, or will have by the close of the year, as compared with 44.8 per cent. the previous year. Of the forty-three men enrolled in the first three classes, thirty-four, or nearly 80 per cent., have college degrees, showing the evident ultimate effect of the high requirements for admission to the school.

The following colleges and universities are represented in the student body: Adelbert, Baldwin, Calvin, Case, Grove City, Gymnasium of Papa, Hungary, Hamilton, Hiram, Leland Stanford, Jr., Mt. Union, Keuka, Oberlin, Ohio State, Ohio Normal, Ohio Wesleyan, Princeton, St. Ignatius, St. Thomas, Volant, Wabash, Westminster, Williams, Washington and Jefferson, Wittenberg and Wooster. Total, 25.

Students are in attendance from six states: Iowa, Massachusetts, Michigan, Ohio, Pennsylvania and New York.

Two men, Messrs. Pay and Laughbaum, have died during the year, one a member of the third year class and the other of the second year. Both were exceptionally bright men and exemplary students.

The receipts from the student fees have been nearly \$9,000, the lowest amount of money received from this source in several years. The amount to be expected next

year will be still less, in consequence of the college requirements, as preliminary training will affect all the classes at that time.

The total number of students in attendance high preliminary steadily diminished since the This has been went into effect. the history of expected and has been institution which has made advanced requirements. either in preliminary training or in the medical course itself. With two or three exceptions every medical school in the country has reported diminished attendance during the year. Harvard, for instance, reports a loss of sixty-five for the year, Columbia, over 100, California, Minnesota, Cornell, Northwestern, etc., all report losses, while only two schools report a perceptible increase, viz., Michigan and Johns Hop-In the past twenty-five years every school which has ever adopted increased standards of training, either preliminary or medical, has ultimately been the gainer, not only in reputation but in attendance of students. This college is now giving evidence of decidedly increased reputation as a thorough teaching and working body, and is becoming well and favorably known throughout the land. also much evidence showing that the near future will bring to us a greatly augmented body of students, all that we shall be able to take care of well and train thoroughly.

The character of the work done by the present student body is immeasurably superior to that done a few years ago. Both quantity and quality are distinctly in a higher plane.

The facilities for clinical teaching are now more on a par with those of the laboratories than ever before and the recent generosity of Mr. Hanna will enable us to improve greatly the thoroughness of the teaching along these lines.

Respectfully submitted,

B. L. MILLIKIN, Dean.

## REPORT OF THE DEAN OF THE FRANKLIN T. BACKUS LAW SCHOOL.

During the past year there have been three new additions to the faculty of the Law School.

Mr. James Albert Ford, a graduate of Adelbert College and of Harvard Law School, was appointed Instructor of the Law of Personal Property and Pleading.

Mr. Frank MacMillan Cobb, a graduate of Yale College and of our Law School, was appointed Instructor of the Law of Agency.

Mr. Harold Remington, a graduate of the University of Michigan and United States Referee in Bankruptcy, was appointed Instructor of the Law of Bankruptcy.

Professor A. A. Stearns and Instructor Frederick W. Green were granted leave of absence for the year, Professor Stearn's work on the Law of Suretyship and Mortgages being taken by Mr. Wilbur, and Mr. Green's work on the Law of Sales being taken by Mr. Fauver.

The course on the Law of Bankruptcy, by Mr. Remington, was the only addition made last year to the courses heretofore given, and was offered to seniors during the last semester.

An average of forty-five hours per week was offered the students of the school during the year.

The attendance for the year was the largest in the history of the school, one hundred and ten students being enrolled. Of these forty-two were college graduates, representing sixteen colleges; two were post-graduate students; ten were seniors in Adelbert College who were uniting their senior work in the College with the first year

work in the Law School; twenty had studied at colleges from one to three years; twenty-eight were graduates of high schools or academies, leaving but ten who had not graduated from some institution. Of these ten nearly all had completed practically all the preparatory work required in a high school, but had not received a diploma from any school.

This statement shows the far better preparation of the students of the school than in former years, and it is evident that the proportion of men who have taken college work before entering upon the study of law in our school is steadily increasing.

The number of college seniors taking work in the law school shows that the possibility of completing the two courses in six years, instead of seven, is being taken advantage of by increasing numbers, while the number of inquiries received from prospective students, who are contemplating uniting the two courses, shows that this number will be increased in the future.

The attendance of the various students upon the recitations was in a general way regular, as was shown by a record of attendance kept during the year.

The standard of scholarship was high and in keeping with the better preparation of the students, and the interest of the students was maintained throughout the year.

The year closed with the success of the senior class at the State Bar Examination, every student recommended by the school being successful, and one of our students standing first, and another third, out of the whole number taking the examination.

Respectfully submitted,

EVAN H. HOPKINS,

Dean.

## REPORT OF THE DEAN OF THE COLLEGE OF DENTISTRY.

At the opening of the Department in 1892 we had twenty students; in 1903, one hundred and fifteen; and in 1904, eighty-eight. The decrease in the last year is due to the increase in the length of the course to four years, which became operative in October, 1903.

This increase means a larger curriculum and should also mean more teachers and further equipment in chemistry, bacteriology, physiology and histology. This year all instruction, except anatomy, has been given at the Dental College. As chemistry was not taught this session it will be necessary to provide for it next session. It would be very desirable to equip a chemical laboratory and thus have that subject taught under our own roof. Good equipment in all laboratories is of great advantage in attracting new students.

The following changes have been made in the Faculty: William Hawksley Weir, M. D., occupies the chair of Physiology, and Willis Sanford Hobson, M. D., the chair of Histology.

Our first faculty consisted of nine members, four of whom are still with us. The present Faculty numbers eighteen. All have labored to establish a college equal to the best. Lectures and demonstrations have been thorough and have covered a large number of subjects. The Dean is grateful to his co-workers for their effort to make the Department a credit to the University.

During the year six thousand operations have been performed at the clinics. They have consisted of treating diseased teeth and other diseases of the oral cavity, surgical operations, neuralgia, filling, extracting, orthodontia, crowns,

bridges, artificial dentures, obturators, etc. A large number of those who come to the clinics are charity patients.

Including the present seniors, 277 students have been graduated from the school, all of whom belong to the Alumni Association. This Association meets yearly for addresses and clinics by some of the members. These meetings are a potent factor in stimulating interest in dental education.

The Wilsonian Dental Society of students meets every two weeks during the session. Members of the Faculty are frequently invited to deliver lectures at its meetings.

We earnestly invite our friends to donate specimens to our Museum and technical and scientific works for our Library.

Respectfully submitted,

H. L. AMBLER, Dean.

## REPORT OF THE LIBRARIAN OF ADELBERT COLLEGE.

The money available for the purchase of books and supplies for the years 1903-4 proceeded from the following sources: from friends of the University, \$2,000, the second installment of the five-year pledge mentioned in our last report; from Hon. John Hay, \$500, to be used in supplementing our Spanish collection; appropriated by the trustees, \$1,000. At a meeting held Oct. 12, 1903, the library committee divided as follows the \$3,000 whose purpose was not specified: Binding, \$200; Biology, \$125; Chemistry, \$125; Economics, \$200; English, \$200; Geology, \$75; German, \$400; Greek, \$125; History, \$200; Church History, \$50; Latin, \$200; Library Committee, \$450; Mathematics, \$100; Philosophy, \$200; Physics, \$100; Romance Languages, \$250.

The statistics of additions to the library follow:

By giftBy purchase	301	Pamphlets. 588
Volumes in library, May 1, 1903	1,645 46,898	
Total, May 1, 1904	48,538	

This is inclusive of the Kirtland Collection of 2,160 volumes, and exclusive of 48 duplicates received during the year. The number of pamphlets now in the library is approximately 10,000.

Following is a list of those to whom we are indebted for the gift of books and pamphlets since the publication of our last report:

Adams, Henry B. Adelphi College. Aikins, H. A Alabama Geological Survey. Alleghany College. American Board of Commissioners for Foreign Missions. Canada—Geolog American Congregational Associa- Canisius College. tion. American Historical Association. American Institute of Social Ser- Carnegie Institute of Washington. vice, N. Y. American Marathi Mission American Presbyterian Mission Press. American Society for the Extension of University Teaching.
Amherst College. Andover Theological Seminary. Antioch College. Arizona, University of. Armour Institute of Technology. Association of Collegiate Alumnae. Auburn Theological Seminary. Baldwin University. Baltimore College of Dental Surgery. Baltimore Woman's College. Bangor Theological Seminary. Baylor University. Bellevue College. Beloit College. Bemis, E. W. Berea College. Blanchard, Rev. E. F. Boston Board of Overseers of the Poor. Boston College. Boston School of English Speech. Bourland, B. P. Bowdoin College. Bradley Polytechnic Institute. Brewer, Orville. Brigham Young College. J. Ğ. Brill Co. Brooklyn Polytechnic Institute. Brown, H. J. Bryn Mawr College.

Buchtel College. Bucke, W. F. Burton, T. E California, University of. Cambridge Episc pal Theological School. Canada—Geological Survey. Capital University. Carleton College. Catholic University of America. Central College of Dentistry, Indianapolis. Century Association. Chambers, D. L. Charleston, College of. Chicago Historical Society. Chicago National Business League. Chicago Theological Seminary. Chicago, University of. Cincinnati, University of. Clark University.
Clemm, Dr. W. M.
Cleveland—Board of Education. Cleveland Institute for Stammerers and Stutterers Cleveland Public Library. Cleveland-Water Works Division. Coe College. Colby College. Cole, F. T. Colorado College and Cutler Academy. Colorado Fuel and Iron Co. Colorado, University of. Columbia University. Columbian University (Washington, D. C.) Columbus Public School Library. Conant, William C Connecticut—State Board of Charities. Cornell College. Cornell University. Coubertin, Baron Pierre de. Creighton University. Curtis, M. M.

Curtis, William E. Davidson College. Delaware College. Denison University. DePauw University. Depew, Chauncey M. Detroit College. Detroit High Schools. Doan College. Drake University. Drexel Institute. Emerson College Erie Public Schools. Das Evangelische Proseminar. Fargo College. Fife, R. H. Findlay College. Pisher, D. W. Fisk University. Fowler, H. N. France—Minister of Foreign Affairs. Franklin and Marshall College. Franklin College. Georgia-Geological Survey. German Theological School (Newark). Ginn & Co. Grafton Hall. Grand Army of the Republic. Green, Samuel A. Grenoble, Université de. Gridley, A. L. Gruener, H. Gustavus Adolphus College. Hamilton College. Hampton Normal and Agricultural Institute. Hanover College. Haring, H. A. Harper & Bros. Harris, Charles. Hartford Theological Seminary. Harvard University. Harvard University Library. Hatch, H. R. Haverford College. Hiram College. Hobart College. Horstman, Rt Rev. Ignatius F. Howard University. Idaho, University of. Illinois—Bureau of Labor Statis-

Illinois College. Illinois State Penitentiary. Indiana-Statistics Department. Internationale Kongress für Angewandte Chemie. Iowa College.
Iowa, State University of. Iowa University Press. James, C. B. Jefferson Medical College. John B. Stetson University. John Crerar Library, Johns Hopkins University.
Kansas, University of.
Kentucky Central University.
Kenyon College.
Knox College. Kohler, Charles. Lafayette College. Lake Forest College. Lake Mohonk Arbitration Conference. Lane Theological Seminary. Lee, Sidney. Leipzig, Universität von. Leland Stanford Junior University. Lewis Institute Loubat, Joseph, Duc de. Louisiana State University. McCleary, James T.
McCormick Theological Seminary. McGann, L. E Maine University. Marietta College.
Maryland—Geological Survey. Massachusetts-Bureau of Statistics of Labor. Massachusetts State Board of Arbitration. Maurer, Konrad von. Meisel, M. E. Merck. E. Michigan College of Mines. Michigan—Geological Survey. Michigan—Labor Bureau. Michigan, University of. Middlebury College. Mills College.
Minnesota, University of.
Mississippi, University of. Missouri, University of. [tics. Monmouth College. atis- Morley, E. W.

Mount Holyoke College. Mount St. Mary's College. Mount Union College. National Civil Service Reform League National Sound Money League. Carolina.

Nebraska—Bureau of Labor Statis- Princeton University tics. Nebraska, University of. New Jersey—Geological Survey. New Jersey, State of. New Mexico, Territory of. New York Baptist Union. New York, Charity Organization Society of. New York, College of the City of. New York, Federation of the Churches of the City of. New York-State Board of Tax Commissioners. New York-State Department of Labor. New York, University of the State of. New York State Charities Aid Association. New York University. Niagara University. North Carolina—Bureau of Labor St. Vincent's College. and Printing.
Northwestern University.
Notre Dame, University of. Oberlin College. Ohio Baptist Convention. Ohio College Association. Ohio Dairy and Food Commission. South Carolina College. Ohio Medical University. Ohio Society of New York. Ohio State Library. Ohio State University. Ohio University. Ohio Wesleyan University. Olivet College. Oregon, University of. Otterbein University. Owen, Thomas M. Paris, Université de. Parsons, E. Pennsylvania College for Women. Pennsylvania Prison Society. Pennsylvania University. Philippine Civil Service Board.

Phillips Exeter Academy.

Pickard, Rev. W. B. Portici—R. Scuola Superiore di Agricoltura. Potwin, L. S. Presbyterian College of South Providence Public Library. Rhode Island-Commissioner of Industrial Statistics. Rhode Island Normal School. Riviere, Benjamin. Robertson, James A. Rochester Theological Seminary. Rochester, University of. Rockford College. Rogers, Mrs. Fairman. Rogers, Mrs. William B. Rollins College. Rose Polytechnic Institute. Rostock, Landes Universität. Rutgers College. St. Āndrews University. St. Benedict's College. St. Charles College. St. Ignatius College. St. Louis University. St. Olaf College. Scott, Frank J. Searight, J. A. Simmons College. Smith College. Smithsonian Institution. Sollmann, Torald. South Dakota, University of. Southern History Association. Stillé, Charles J Storey, Moorfield. Streator, M. L. Swarthmore College. Syracuse University. Tabor College. Texas, University of. Thompson, W. O. Thwing, Charles F. Tower, O. F.
Trinity College.
Tufts College. Tuskegee Normal and Industrial Institute. Union Theological Seminary.

Union University. United States Government. University Club, New York. University of the South. Ursinus College. Utah, University of. Vauderbilt University. Vassar College. Vermont, University of. Virginia, University of. Wabash College. Walden University. Washburn College. Washington University. Washington University (St. Louis) Woodward, H. W. Welcker, Adair. Yale Alumni Weekly Wellesley College. Wells College. Wesleyan University. Western Reserve University.

W. R. U.—Class of 1904. W. R. U.—Adelbert College-Class in Economics, W. R. U.—College for Women— Class of 1904. Western University of Pennsylvania. White, J. G. William Jewell College. Williams, H. S. Williams College. Wisconsin University. Wittenberg College. Wood, F. M. Yale Astronomical Observatory. Yale College. Yale University. Young, A. A.

In April, 1904, two large floor cases were placed in the north end of the reference room. These cases contain 450 feet of shelving, with a capacity of about 4,000 volumes, and will afford a much needed relief from the congested condition of the reference room.

There are a few departmental needs which may be mentioned. The department of history lacks sets like Hansard's Parliamentary Debates, Marten's Recueil de traités, Dumont's Corps universel diplomatique du droit des gens and many standard works in English and American history. The Spanish collection, by the judicious expenditure of the funds now in hand, will be brought to a state of reasonable efficiency, but funds are needed to do as much for Italian The French collection has had few important additions for two or three years, and a considerable sum might be expended in carrying on the work which has been so well started. Another need is for an equipment of reference works in statistics. Such a collection would serve many departments. Its initial cost would be comparatively small, but there would be a fixed annual expenditure incurred in keeping it up to date. The additions suggested

here cannot well be made from the small sums granted to each department from our common funds, which are quickly exhausted by the demands for current books and periodicals. The cost of such additions must be met by special gifts, of which Hon. John Hay's gift for the purchase of Spanish books is a good example.

A few of the notable accessions of the year are the following:

SPANISH—Calderon de la Barca—Comedias, pub. por Keil, 4 volumes; Calderon de la Barca—Comedias, pub. por Hartzenbusch, 4 volumes; Celestina, trans. by Mabbe, 1894; Garcilaso de la Vega—Obras; Juan Boscan—Obras; Juan de la Encina—Obras; Covarruvias Orozco—Tesoro de la lengua castellana; Blanco García—Literatura española, 3 volumes; Menendez y Pelayo—Historia de los heterodoxos españoles, 3 volumes; Sâ de Miranda—Poesias; Cervantes—Don Quixote, pub. por Kelly & Ormsby, 2 volumes; Cervantes—Don Quixote, translated by Ormsby, 4 volumes; Coleccion de libros raros ó curiosos, 24 volumes; Libros de antaño, 15 volumes; Biblioteca de autores españoles, 40 volumes (to complete our set); Kelly—Life of Cervantes; Watt—Life of Cervantes.

HISTORY—Sir James H. Ramsay's Works; Gardiner—History of the commonwealth and protectorate, 3 volumes; Gardiner—History of the great civil war, 4 volumes; Tuttle—History of Prussia, 4 volumes; Pastor—History of the popes, 6 volumes; Janssen—History of the German people, 6 volumes; Morley—Life of Gladstone, 3 volumes; Strype's Works, 24 volumes; Cobbett—Parliamentary history of England, 36 volumes; Henry C. Lea's Works; The Cambridge Modern History; Fournier's Napoleon I, edited by Bourne; Maitland—The dark ages; Rounds—Feudal England; Bradshaw—Self-government in Canada.

BIBLIOGRAPHY AND REFERENCE DEPARTMENT. — Stammhammer—Bibliographie der Social-politik; Stammhammer—Bibliographie der Finanzwissenschaft; Evans—American bibliography, 1639-1820; Arber—Term Catalogues, 1668-1709; Arber—Transcripts of the Stationers' Registers, 1554-1640; Elster—Wörterbuch der Volkswirthschaft, 2 volumes; Chambers' Cyclopædia of English literature, new edition by Patrick, 3 volumes; De Bow's Review, 29 volumes; International Socialist Review, 3 volumes; Racinet—Le Costume historique, 6 volumes.

MISCELLANEOUS—Maeterlinck—Oeuvres, 7 volumes; Gaston Paris—Oeuvres; Richter—Lexikon der Kohlenstoffverbindungen, 4 volumes; Williams—History of the art of writing, 4 volumes, large folio; Garnett & Gosse—History of English literature, 4 volumes; Hazlitt—Collected works, ed. by Waller & Glover; Charles & Mary Lamb—Works, ed. by Lucas; Lyly—Works, ed. by Bond, 3 volumes; Mathematische Annalen, vol. 1-24.

An addition worthy of special mention is the Philippine Islands, 1493-1803, edited by E. H. Blair & J. A. Robertson, 55 volumes. This set is the gift of one of the editors, Mr. James A. Robertson, class of '96. Nine volumes of this set have been published to date.

Respectfully submitted,

E. C. WILLIAMS, Librarian.

## REPORT OF THE LIBRARIAN, COLLEGE FOR WOMEN.

The aim and purpose of the Library Committee of the College for Women has been to make the library as completely as possible a practical working library, trusting to Hatch library for specialized reference work. The result has been satisfactory. The library is fairly well supplied with encyclopedias, dictionaries and other books of reference, as well as with some of the best works of English and American literature and history. The total number of volumes is 4,600. Hatch library has loaned many volumes each term to supplement the reference books needed for the various courses.

It has been a satisfaction to notice the interest taken by the students in the new books purchased each month, and they frequently supplement the required readings by borrowing volumes from the stock shelves.

With the Carrie F. Bulter Thwing fund is purchased such books of reference as are useful for general work along the lines of history and literature, and such as cannot be purchased from the small funds at the disposal of these departments.

The class of 1902 has placed in the study room of Haydn Hall dictionaries and reference books to the value of one hundred dollars, for the use of students.

The class of 1903 has placed in the library at Clark Hall a case containing photographs of the chateaux and castles of France which illustrate the feudal fortifications. These photographs are most interesting and are a valuable supplement to the lectures and required readings for the classes in mediaeval history. The case and photographs are valued at two hundred dollars.

The Florence Harkness Biblical Library, a carefully selected collection of 723 volumes in biblical literature, is at the disposal of the students of the University.

The following is the list of donors of books and pamphlets for the year 1903-4:

Boardman, Mabel S.

Bourne, H. E.

Class of 1904.

Class of 1905.

The Commons.

Cleveland Public Library.

Cushing, Dr. H. K.

Folio Board, College for Women.

Fowler, H. N.

Haydn, H. C.

Mass Assoc. opposed to suffrage for women.

National Sound Money League.

Sanderson, Gertrude A.

Storer, Winifred A.

Standard Oil Company.

Thwing, C. F.

United States Government.

Following is a list of those who have given money for purchasing books during the year:

Mrs. J. H. Wade.

Mrs. Samuel Mather.

Mrs. J. C. Morse.

Mrs. W. S. Tyler.

Mrs. J. J. Tracy.

Mrs. D. P. Allen.

Harkness Library ...... 723

Volumes in library June, 1904...... 4,600

The total amount expended from the library appropriations, and from the gifts of friends, has been \$577.12 during the year, and we have now on hand a balance of \$331.40.

Respectfully,

Anna L. MacIntyre,

Librarian.

## REPORT OF THE INSTRUCTOR OF PHYSICAL TRAINING, ADELBERT COLLEGE.

As instructor in physical training and director of the gymnasium, I beg leave to submit a report of this department for the year 1903-4.

During the month of October seventy men were measured and examined. The average condition of the men was good, although most showed the lack of physical exercise. The regular gymnasium work began November 1st, work being required three days per week. All men playing on the various athletic teams were excused during the active period of those teams, this work being considered a full equivalent to the required gymnasium work for that period.

In all the work the emphasis has been put on the hvgienic and recreative side of gymnastics rather than on the educational, that is, an attempt has not been made to teach fancy gymnastics, or "stunts," as it is popularly expressed by the students, but the aim has been to promote a normal amount of the best exercise to suit the needs and requirements of students. The day's order consisted of mass calisthenics-emphasizing those movements which involve large groups of muscles and conduce to a better carriage; apparatus work, in which the endeavor has been to make all exercises of an athletic nature, involving active use of the lower limbs rather than the upper; games and recreative exercises. During the second half class instruction in boxing was given once a week with good results. This work, however, was handicapped considerably by the lack of gloves.

On April 19 a contest was held to determine the increase in proficiency in gymnasium work to aid in the award-

ing of the gymnasium prize. This contest consisted of exercise on three pieces of apparatus and three athletic events—high jump from spring board, bar vault and quarter mile run. This contest counted twenty per cent. toward the prize.

On April 21 the annual gymnasium exhibition took place. Those who were present enjoyed the performance of the participants and much good work was done, although the period of training was quite short.

The second examination shows a marked improvement in all ways in most of the students—their condition is higher, strength much increased, measurements larger. As a concrete example let us consider the strength tests. The average total strength for the first examination before regular exercise was begun was 1167.87; the average for the second test, after six months work, was 1365,—an increase of 197.13. In individual cases great increase is shown. The student who ranked sixty-sixth in the first test has increased 474.8, making him about twenty-fifth in the second. This same student made a total increase in measurement of 353 mm. or over 14 inches. Others have increased in strength 428.96, 401.58, 209. 49, etc., and in measurements 364 mm., 349, 245, etc.

During the fall apparatus to make our strength tests uniform with those adopted by other colleges was purchased. This equips the examining room fully, except in one respect, that of scales. An improvement in this would be greatly appreciated by all who use this piece of apparatus.

The measurements of each man are charted on anthropometrical charts compiled by Dr. L. H. Gulick, of New York, before and after the course in the gymnasium. This enables him to see his improvement and to compare himself, as regards his proportions, with other men. These

charts are the most satisfactory published, but in many ways are not adapted for use in our college gymnasium. The proper comparison for our students is with previous students. To this end the department aims to compile such a chart from the measurements of the previous Freshman classes at an early date.

The outline of the work for the coming season is somewhat similar to that of the past season. During the first half class instruction in wrestling will be given; during the second, in boxing To stimulate athletics and to aid in track work, it is proposed to hold a series of indoor athletic contests during the six months of work. An attempt will be made to organize a class in fencing.

I regret to report that our equipment of lockers is in very poor condition. It has been a source of much annoyance to the students and the department throughout the year. A thorough overhauling of all lockers is suggested and steps taken to prevent the forcing of the locks—a habit that is quite common, especially among the men representing the athletic association.

To facilitate the handling of the classes the addition of more apparatus would be greatly appreciated. We suggest the addition of a spring board similar to the one at present in the equipment and a horizontal bar without the inconvenience of the present one. For the examining room a triple-beam scales, in metric and ordinary denominations, would be a great improvement. To this end the department of physical training would ask for an increased appropriation for the year 1904-5.

Respectfully submitted,

E. von den Steinen, Instructor.

### REPORT OF INSTRUCTOR OF PHYSICAL TRAIN-ING, COLLEGE FOR WOMEN.

During the current year the work of the gymnasium has aimed to be practical and progressive, instilling right physical conditions, correcting faulty habits in carriage and breathing, educating the body to perform the greatest amount of work with the least expenditure of energy, and cultivating reserve strength.

There has been no change in the department other than the confining of basket-ball to classes taking regular gymnasium work. In the inter-class series of games the Sophomores won the championship cup offered by the Athletic Association. The Association has added a tennis championship cup to its trophies and a tournament open to its members will supplement the other out-of-door sports, the "finals" to be played during the commencement season.

Respectfully submitted,

MARY GEORGE CLARK,

Instructor.

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